

OIL ANALYSIS REPORT

VOLVO PENTA

NADINE URUIOLI NEAL BIDLEMAN VOLVO PENTA 4012198396 - STERNDRIVE - CENTER GASOLINE ENGINE

Sample No: VPA060743

Oil Type: VOLVO 10W40

SAMPLE INFORMATION

Sample Number	VPA060743	---	---	---
Sample Date	22 Apr 2024	---	---	---
Machine Hours	522	---	---	---
Oil Hours	521	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

Helmut's Marine Service

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

T: x:

F: x:

OIL CONDITION

Visc @ 100°C	cSt	● 19.01	---	---	---
Base Number (BN)	mg KOH/g	■ 8.9	---	---	---
Oxidation (PA)	%	■ 13	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	■ 6	---	---	---
Sulfation (PA)	%	■ 11	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	■ 8	---	---	---
Sodium	ppm	■ <1	---	---	---
Potassium	ppm	■ 2	---	---	---

WEAR METALS

Iron	ppm	■ 8	---	---	---
Copper	ppm	■ 4	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ 2	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 33	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	■ 1674	---	---	---
Magnesium	ppm	■ 18	---	---	---
Zinc	ppm	■ 825	---	---	---
Phosphorus	ppm	■ 735	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	1	---	---	---

Depot: VP152741

Unique No: 11015836

Signed: Don Baldrige

Report Date: 10 May 2024

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GRAPHS

