

# OIL ANALYSIS REPORT

# VOLVO PENTA

## ALPHA CAS JRS VOLVO PENTA 2013962586 - PORT DIESEL ENGINE

Sample No: VPA037269

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

### SAMPLE INFORMATION

Sample Number	VPA037269	VPA037275	VPA041633	---
Sample Date	15 Oct 2023	11 Jan 2023	16 Jun 2022	---
Machine Hours	628	385	217	---
Oil Hours	243	200	217	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

### OIL CONDITION

Visc @ 100°C	cSt	█ 13.3	█ 13.2	█ 13.1	---
Base Number (BN)	mg KOH/g	█ 9.1	█ 9.4	█ 8.0	---
Oxidation (PA)	%	69	60	41	---

### CONTAMINATION

Soot %	%	█ 0.3	█ 0.3	█ 0.3	---
Nitration (PA)	%	71	60	52	---
Sulfation (PA)	%	60	55	44	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 6	█ 8	█ 21	---
Sodium	ppm	█ 0	█ 1	█ 1	---
Potassium	ppm	█ 4	█ 7	█ 25	---

### WEAR METALS

Iron	ppm	█ 11	█ 14	█ 36	---
Copper	ppm	█ 5	█ 9	█ 34	---
Lead	ppm	█ 1	█ 1	█ 3	---
Tin	ppm	█ <1	█ 1	█ 3	---
Aluminum	ppm	█ 2	█ 2	█ 14	---
Chromium	ppm	█ <1	█ <1	█ <1	---
Molybdenum	ppm	█ 64	█ 57	█ 47	---
Nickel	ppm	█ <1	█ <1	█ 0	---
Titanium	ppm	█ <1	█ 0	█ 0	---
Silver	ppm	█ 0	█ 0	█ <1	---
Manganese	ppm	█ <1	█ <1	█ 3	---
Vanadium	ppm	█ 0	█ 0	█ 0	---

### ADDITIVES

Calcium	ppm	█ 1093	█ 1085	█ 1103	---
Magnesium	ppm	█ 979	█ 909	█ 998	---
Zinc	ppm	█ 1266	█ 1230	█ 1469	---
Phosphorus	ppm	█ 1000	█ 1033	█ 1194	---
Barium	ppm	█ 3	█ 0	█ 0	---
Boron	ppm	█ 5	█ 0	█ 3	---

### ALPHA CAS

100 BUELL HILL RD  
KILLINGWORTH, CT  
US 06419

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### Diagnosis

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: ALPKIL

Unique No: 10712304

Signed: Sean Felton

Report Date: 27 Oct 2023

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PENTA**

## GRAPHS

