

# OIL ANALYSIS REPORT

# VOLVO PENTA

## TRAVIS HOLT CLIFTON MILLER VOLVO PENTA 7011314948 - PORT DIESEL ENGINE

Sample No: VPA036544

Oil Type: VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	VPA036544	VPA045896	VPA043497	VPA035217
Sample Date	06 Jul 2023	01 May 2023	19 Sep 2022	03 Sep 2022
Machine Hours	2288	2089	2008	1931
Oil Hours	0	80	0	88
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	█ 12.5	█ 12.8	█ 13.0	█ 12.8
Base Number (BN)	mg KOH/g	█ 9.6	█ 8.8	█ 11.1	█ 11.1
Oxidation (PA)	%	57	52	60	61

### CONTAMINATION

Soot %	%	█ 0.5	█ 0.2	█ 0.3	█ 0.4
Nitration (PA)	%	54	41	50	55
Sulfation (PA)	%	55	47	57	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	█ 7	█ 18	█ 4	█ 4
Sodium	ppm	█ 1	█ <1	█ 0	█ 1
Potassium	ppm	█ <1	█ 2	█ <1	█ 0

### WEAR METALS

Iron	ppm	█ 6	█ 3	█ 2	█ 4
Copper	ppm	█ 31	█ 7	█ 11	█ 19
Lead	ppm	█ 1	█ 0	█ <1	█ <1
Tin	ppm	█ <1	█ 0	█ 0	█ <1
Aluminum	ppm	█ 2	█ 3	█ <1	█ 1
Chromium	ppm	█ <1	█ <1	█ <1	█ 0
Molybdenum	ppm	█ 65	█ 52	█ 52	█ 61
Nickel	ppm	█ <1	█ 0	█ 0	█ 0
Titanium	ppm	█ 0	█ 0	█ 0	█ 0
Silver	ppm	█ 0	█ 0	█ 0	█ 0
Manganese	ppm	█ <1	█ <1	█ <1	█ <1
Vanadium	ppm	0	0	0	0

### ADDITIVES

Calcium	ppm	█ 1137	972	█ 1005	█ 1074
Magnesium	ppm	1073	█ 908	█ 885	█ 924
Zinc	ppm	█ 1393	█ 1169	█ 1100	█ 1189
Phosphorus	ppm	█ 1144	█ 922	█ 909	█ 1016
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 3	█ 0	█ 2	█ 4

### 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: VP794951  
Unique No: 10587677  
Signed: Doug Bogart  
Report Date: 06 Aug 2023

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## GRAPHS

