

# OIL ANALYSIS REPORT

# VOLVO PENTA

## JOE WANNER MERCUISER 1A615523 - STARBOARD GASOLINE ENGINE

Sample No: VPA059322  
Oil Type: MERCURY 25W40

### SAMPLE INFORMATION

Sample Number	VPA059322	VPA044767	VPA038619	---
Sample Date	18 Oct 2023	24 Oct 2022	27 Oct 2021	---
Machine Hours	594	534	458	---
Oil Hours	60	71	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

### OIL CONDITION

Visc @ 100°C	cSt	█ 11.2	█ 11.3	█ 10.4	---
Base Number (BN)	mg KOH/g	█ 8.0	█ 6.8	---	---
Oxidation (PA)	%	17	17	20	---

### CONTAMINATION

Soot %	%	█ 0	█ 0.1	█ 0.1	---
Nitration (PA)	%	10	11	13	---
Sulfation (PA)	%	13	14	15	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 17	█ 23	█ 40	---
Sodium	ppm	█ 2	█ <1	█ 4	---
Potassium	ppm	█ 0	█ 2	█ 1	---

### WEAR METALS

Iron	ppm	█ 19	█ 21	█ 92	---
Copper	ppm	█ 2	█ 2	█ 6	---
Lead	ppm	█ 2	█ 3	█ 8	---
Tin	ppm	█ 1	█ 1	█ 3	---
Aluminum	ppm	█ 2	█ 2	█ 5	---
Chromium	ppm	█ 1	█ 1	█ 2	---
Molybdenum	ppm	43	38	45	---
Nickel	ppm	█ <1	█ <1	█ 1	---
Titanium	ppm	0	<1	<1	---
Silver	ppm	█ 0	█ 0	█ 0	---
Manganese	ppm	<1	1	2	---
Vanadium	ppm	0	<1	0	---

### ADDITIVES

Calcium	ppm	1763	1592	1422	---
Magnesium	ppm	37	61	206	---
Zinc	ppm	730	775	821	---
Phosphorus	ppm	638	601	674	---
Barium	ppm	0	0	0	---
Boron	ppm	97	0	1	---

### CHICAGO YACHT WORKS

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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: VP1080862  
Unique No: 10714087  
Signed: Don Baldrige  
Report Date: 30 Oct 2023

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## GRAPHS

