

# OIL ANALYSIS REPORT

# VOLVO PENTA

## EMERALD EYES 13088 MERCURISER OLOO2190 - STARBOARD GASOLINE ENGINE

Sample No: VPA046484

Oil Type: MERCURY 25W40

### SAMPLE INFORMATION

Sample Number	VPA046484	VPA047018	VPA039484	---
Sample Date	21 Feb 2023	07 Mar 2022	08 Nov 2021	---
Machine Hours	921	0	901	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

### CHICAGO YACHT WORKS

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### OIL CONDITION

Visc @ 100°C	cSt	12.9	15.8	13.3	---
Base Number (BN)	mg KOH/g	8.2	9.8	---	---
Oxidation (PA)	%	13	13	15	---

### CONTAMINATION

Water	%	---	---	0.106	---
Soot %	%	0.1	0	0.1	---
Nitration (PA)	%	7	6	8	---
Sulfation (PA)	%	11	11	12	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	4	4	6	---
Sodium	ppm	2	1	5	---
Potassium	ppm	0	<1	1	---

### 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.

### WEAR METALS

Iron	ppm	17	11	38	---
Copper	ppm	65	26	99	---
Lead	ppm	1	<1	2	---
Tin	ppm	1	<1	2	---
Aluminum	ppm	2	1	3	---
Chromium	ppm	<1	<1	1	---
Molybdenum	ppm	50	50	53	---
Nickel	ppm	0	0	<1	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	0	0	---

### ADDITIVES

Calcium	ppm	2239	2317	2242	---
Magnesium	ppm	18	12	16	---
Zinc	ppm	832	957	913	---
Phosphorus	ppm	697	804	751	---
Barium	ppm	0	0	0	---
Boron	ppm	191	223	188	---

Depot: VP1080862  
Unique No: 10358286  
Signed: Don Baldrige  
Report Date: 01 Mar 2023

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## GRAPHS

