

# OIL ANALYSIS REPORT

# VOLVO PENTA

## MARLENE 0479041 - STARBOARD DIESEL ENGINE

**Sample No:** VPA060758  
**Oil Type:** YANMAR 5W40

### SAMPLE INFORMATION

Sample Number	VPA060758	VPA044203	VPA043554	VPA034506
Sample Date	08 Dec 2023	22 Dec 2022	23 Dec 2021	11 Jan 2021
Machine Hours	361	327	281	0
Oil Hours	34	45	22	0
Oil Changed	N/A	Changed	Not Changd	N/A
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

### The Talaria Company

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### OIL CONDITION

Visc @ 100°C	cSt	13.4	13.3	14.7	14.7
Base Number (BN)	mg KOH/g	8.2	8.7	11.2	---
Oxidation (PA)	%	53	50	38	59

### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.6	0.4	0.2	0.2
Nitration (PA)	%	63	63	63	53
Sulfation (PA)	%	53	50	40	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	4	2	5
Sodium	ppm	2	3	6	2
Potassium	ppm	6	3	3	14

### 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 acceptable for the time in service.

### WEAR METALS

Iron	ppm	13	13	11	10
Copper	ppm	19	17	6	6
Lead	ppm	0	<1	0	0
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	3	2	1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	10	18	<1	1
Nickel	ppm	3	1	<1	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0

### ADDITIVES

Calcium	ppm	1437	1709	2423	2327
Magnesium	ppm	542	413	11	23
Zinc	ppm	1127	1061	926	1019
Phosphorus	ppm	962	908	856	882
Barium	ppm	0	0	0	0
Boron	ppm	121	110	82	142

**Depot:** VP592286  
**Unique No:** 10794173  
**Signed:** Sean Felton  
**Report Date:** 20 Dec 2023

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## GRAPHS

