

# OIL ANALYSIS REPORT



**LEE RICHARDSON PB 65-16/3754 VOLVO PENTA 2013902084 - STARBOARD DIESEL ENGINE**

**Sample No:** VPA054056  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40

## SAMPLE INFORMATION

Sample Number	VPA054056	---	---	---
Sample Date	21 Mar 2024	---	---	---
Machine Hours	296	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

**GRAND BANKS**  
 450 SW SALEM RD  
 STUART, FL  
 US 34994  
 Contact: ROBERT ANTONA  
 roberta@gbmarinegroup.com  
 T: (609)384-5290  
 F:

## OIL CONDITION

Visc @ 100°C	cSt	█ 13.2	---	---	---
Base Number (BN)	mg KOH/g	█ 9.1	---	---	---
Oxidation (PA)	%	67	---	---	---

## CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	68	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 7	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 4	---	---	---

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	█ 19	---	---	---
Copper	ppm	█ 4	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 62	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 0	---	---	---
Vanadium	ppm	0	---	---	---

Diagnosis

## ADDITIVES

Calcium	ppm	█ 1193	---	---	---
Magnesium	ppm	1049	---	---	---
Zinc	ppm	█ 1306	---	---	---
Phosphorus	ppm	█ 1080	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 13	---	---	---

**Depot:** VP531377  
**Unique No:** 10955037  
**Signed:** Sean Felton  
**Report Date:** 04 Apr 2024

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## GRAPHS

