

# OIL ANALYSIS REPORT



## APAVA - RICHARD GOLDSTEN GB6017 FISCHER PANDA SN-181-518 - STARBOARD GENSET

**Sample No:** VPA056621  
**Oil Type:** SHELL ROTELLA T 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA056621</b>	VPA044570	VPA039156	---
Sample Date	<b>14 Nov 2023</b>	10 Oct 2022	08 Oct 2021	---
Machine Hours	<b>563</b>	407	233	---
Oil Hours	<b>200</b>	150	100	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>NORMAL</b>	NORMAL	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	<b>13.7</b>	13.6	13.1	---
Base Number (BN)	mg KOH/g	<b>7.8</b>	9.3	---	---
Oxidation (PA)	%	<b>69</b>	71	34	---

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<b>0.1</b>	0.2	0.1	---
Nitration (PA)	%	<b>56</b>	61	43	---
Sulfation (PA)	%	<b>56</b>	59	43	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>6</b>	10	9	---
Sodium	ppm	<b>3</b>	3	7	---
Potassium	ppm	<b>9</b>	8	<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	<b>10</b>	13	35	---
Copper	ppm	<b>1</b>	2	2	---
Lead	ppm	<b>1</b>	<1	<1	---
Tin	ppm	<b>1</b>	<1	<1	---
Aluminum	ppm	<b>2</b>	4	10	---
Chromium	ppm	<b>1</b>	<1	2	---
Molybdenum	ppm	<b>3</b>	4	4	---
Nickel	ppm	<b>1</b>	0	0	---
Titanium	ppm	<b>1</b>	0	<1	---
Silver	ppm	<b>&lt;1</b>	<1	<1	---
Manganese	ppm	<b>1</b>	<1	<1	---
Vanadium	ppm	<b>&lt;1</b>	<1	0	---

### ADDITIVES

Calcium	ppm	<b>2355</b>	2542	3770	---
Magnesium	ppm	<b>9</b>	51	54	---
Zinc	ppm	<b>1246</b>	1158	1159	---
Phosphorus	ppm	<b>928</b>	926	953	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>175</b>	135	6	---

**Depot:** VP531377  
**Unique No:** 10753994  
**Signed:** Angela Borella  
**Report Date:** 28 Nov 2023

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# VOLVO PENTA

## GRAPHS

