

# OIL ANALYSIS REPORT

# VOLVO PENTA

## SHENENDOAH 20165899 - INBOARD - STARBOARD GEARBOX

Sample No: VPA058452  
Oil Type: SHELL ROTELLA T 30

### SAMPLE INFORMATION

|               |             |             |             |             |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | VPA058452   | VPA044231   | VPA043550   | VPA028753   |
| Sample Date   | 03 Dec 2023 | 14 Dec 2022 | 10 Dec 2021 | 19 Jan 2021 |
| Machine Hours | 743         | 673         | 548         | 545         |
| Oil Hours     | 68          | 49          | 81          | 87          |
| Oil Changed   | Changed     | Changed     | Not Changd  | N/A         |
| Sample Status | NORMAL      | NORMAL      | NORMAL      | NORMAL      |

### OIL CONDITION

|             |     |        |        |        |       |
|-------------|-----|--------|--------|--------|-------|
| Visc @ 40°C | cSt | ■ 88.5 | ■ 90.9 | ■ 95.6 | ■ 103 |
|-------------|-----|--------|--------|--------|-------|

### CONTAMINATION

| Water     | %   | NEG | NEG | NEG | NEG  |
|-----------|-----|-----|-----|-----|------|
| Silicon   | ppm | ■ 3 | ■ 4 | ■ 3 | ■ 4  |
| Sodium    | ppm | ■ 2 | ■ 5 | ■ 2 | ■ 3  |
| Potassium | ppm | ■ 0 | ■ 0 | ■ 0 | ■ 16 |

### WEAR METALS

|            |     |       |      |      |      |
|------------|-----|-------|------|------|------|
| PQ         |     | ■ 18  | ■ 11 | ■ 22 | ■ 17 |
| Iron       | ppm | ■ 4   | ■ 9  | ■ 10 | ■ 5  |
| Copper     | ppm | ■ 26  | ■ 32 | ■ 37 | ■ 31 |
| Lead       | ppm | ■ 0   | ■ 0  | ■ <1 | ■ <1 |
| Tin        | ppm | ■ 0   | ■ 0  | ■ <1 | ■ 0  |
| Aluminum   | ppm | ■ 0   | ■ <1 | ■ <1 | ■ 2  |
| Chromium   | ppm | ■ 0   | ■ <1 | <1   | <1   |
| Molybdenum | ppm | ■ 106 | 104  | 103  | 89   |
| Nickel     | ppm | ■ 0   | ■ 0  | 0    | 0    |
| Titanium   | ppm | 0     | 0    | 0    | <1   |
| Silver     | ppm | 0     | 0    | <1   | <1   |
| Manganese  | ppm | ■ 0   | <1   | <1   | <1   |
| Vanadium   | ppm | 0     | 0    | 0    | 0    |

### ADDITIVES

|            |     |        |      |      |      |
|------------|-----|--------|------|------|------|
| Calcium    | ppm | ■ 2619 | 2498 | 2322 | 2189 |
| Magnesium  | ppm | ■ 20   | 35   | 81   | 196  |
| Zinc       | ppm | ■ 1164 | 1043 | 982  | 956  |
| Phosphorus | ppm | ■ 986  | 970  | 893  | 903  |
| Barium     | ppm | ■ 0    | 0    | 0    | 0    |
| Boron      | ppm | ■ 4    | 11   | 9    | 7    |

### The Talaria Company

202 Banks St., One Little Harbor Landing  
OXFORD, MD  
US 21654  
Contact: TRACY PELLERIN  
tpellerin@hinckleyyachts.com  
T: (410)770-4899  
F: x:

### 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 condition of the oil is acceptable for the time in service.

Depot: VP592286  
Unique No: 10768643  
Signed: Don Baldrige  
Report Date: 06 Dec 2023

# OIL ANALYSIS REPORT



## GRAPHS

