

# OIL ANALYSIS REPORT



## RYAN KELLY SAM ZF 20006122 INBOARD - PORT GEARBOX

**Sample No:** VPA060034  
**Oil Type:** DIESEL ENGINE OIL SAE 30

### SAMPLE INFORMATION

Sample Number	<b>VPA060034</b>	VPA047670	VPA002420	---
Sample Date	<b>14 Feb 2024</b>	16 Jan 2023	13 May 2015	---
Machine Hours	<b>972</b>	834	0	---
Oil Hours	<b>0</b>	141	4	---
Oil Changed	<b>Changed</b>	Not Changd	Changed	---
Sample Status	<b>SEVERE</b>	SEVERE	NORMAL	---

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### OIL CONDITION

Visc @ 40°C	cSt	<b>87.3</b>	87.7	97.35	---
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### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Silicon	ppm	<b>7</b>	8	6	---
Sodium	ppm	<b>&lt;1</b>	<1	3	---
Potassium	ppm	<b>0</b>	0	0	---

### WEAR METALS

PQ		<b>20</b>	12	27.0	---
Iron	ppm	<b>32</b>	32	77	---
Copper	ppm	<b>308</b>	341	44	---
Lead	ppm	<b>246</b>	254	255	---
Tin	ppm	<b>3</b>	2	0	---
Aluminum	ppm	<b>&lt;1</b>	<1	3	---
Chromium	ppm	<b>&lt;1</b>	<1	<1	---
Molybdenum	ppm	<b>47</b>	48	61	---
Nickel	ppm	<b>0</b>	<1	1	---
Titanium	ppm	<b>0</b>	0	<1	---
Silver	ppm	<b>0</b>	0	0	---
Manganese	ppm	<b>&lt;1</b>	<1	<1	---
Vanadium	ppm	<b>&lt;1</b>	0	0	---

### ADDITIVES

Calcium	ppm	<b>3474</b>	3497	1088	---
Magnesium	ppm	<b>16</b>	28	776	---
Zinc	ppm	<b>1111</b>	1106	1144	---
Phosphorus	ppm	<b>1016</b>	961	1039	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>443</b>	459	133	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Clutch wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**Depot:** VP794951  
**Unique No:** 10890141  
**Signed:** Sean Felton  
**Report Date:** 26 Feb 2024

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**VOLVO  
PENTA**

## GRAPHS

