

# OIL ANALYSIS REPORT



## PACIFIC RAIL SAM VOLVO PENTA 20132301754 - DIESEL ENGINE

**Sample No:** VPA060067  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40

### SAMPLE INFORMATION

Sample Number	VPA060067	---	---	---
Sample Date	08 Mar 2024	---	---	---
Machine Hours	393	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	ABNORMAL	---	---	---

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### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	---	---	---
Base Number (BN)	mg KOH/g	■ 11.1	---	---	---
Oxidation (PA)	%	47	---	---	---

### Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the fuel injection system. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	70	---	---	---
Sulfation (PA)	%	44	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	▲ 4.8	---	---	---
Silicon	ppm	■ 28	---	---	---
Sodium	ppm	▲ 285	---	---	---
Potassium	ppm	▲ 28	---	---	---

### WEAR METALS

Iron	ppm	■ 11	---	---	---
Copper	ppm	■ 156	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ 2	---	---	---
Chromium	ppm	■ 0	---	---	---
Molybdenum	ppm	■ 58	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	■ 4	---	---	---
Silver	ppm	■ 2	---	---	---
Manganese	ppm	■ 3	---	---	---
Vanadium	ppm	0	---	---	---

### ADDITIVES

Calcium	ppm	■ 1000	---	---	---
Magnesium	ppm	■ 426	---	---	---
Zinc	ppm	■ 840	---	---	---
Phosphorus	ppm	■ 731	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 25	---	---	---

**Depot:** VP794951  
**Unique No:** 10926942  
**Signed:** Jonathan Hester  
**Report Date:** 19 Mar 2024

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## GRAPHS

