

# OIL ANALYSIS REPORT



## CROSS SERVICE ONAN C180320039 - GENSET

**Sample No:** VPA057264  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

### SAMPLE INFORMATION

Sample Number	VPA057264	VPA044895	---	---
Sample Date	12 Mar 2024	08 Mar 2023	---	---
Machine Hours	1133	994	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

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### OIL CONDITION

Visc @ 100°C	cSt	▲ 11.8	▲ 11.7	---	---
Base Number (BN)	mg KOH/g	■ 9.6	■ 10.0	---	---
Oxidation (PA)	%	■ 58	■ 55	---	---

### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.1	■ 0.2	---	---
Nitration (PA)	%	■ 46	■ 50	---	---
Sulfation (PA)	%	■ 50	■ 52	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	▲ 4.6	▲ 5.6	---	---
Silicon	ppm	■ 11	■ 16	---	---
Sodium	ppm	■ 2	■ <1	---	---
Potassium	ppm	■ <1	■ 1	---	---

### Diagnosis

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. 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.

### WEAR METALS

Iron	ppm	■ 6	■ 7	---	---
Copper	ppm	■ 2	■ 2	---	---
Lead	ppm	■ 0	■ 0	---	---
Tin	ppm	■ <1	■ <1	---	---
Aluminum	ppm	■ 2	■ 2	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 59	■ 56	---	---
Nickel	ppm	■ <1	■ <1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ 0	■ <1	---	---
Vanadium	ppm	0	0	---	---

### ADDITIVES

Calcium	ppm	■ 1067	1053	---	---
Magnesium	ppm	■ 972	862	---	---
Zinc	ppm	■ 1215	■ 1139	---	---
Phosphorus	ppm	■ 1022	■ 950	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ <1	■ <1	---	---

**Depot:** VP945077  
**Unique No:** 10930178  
**Signed:** Jonathan Hester  
**Report Date:** 25 Mar 2024

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**VOLVO  
PENTA**

## GRAPHS

