



# CONSTRUCTION EQUIPMENT

687032 RENTALS TB290 185109863 - DIESEL ENGINE



**Sample No:** VCP438365  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** 687032 RENTALS



## SAMPLE INFORMATION

Sample Number	VCP438365	---	---	---
Sample Date	07 Mar 2024	---	---	---
Machine Hours	1029	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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## OIL CONDITION

Visc @ 100°C	cSt	● 10.6	---	---	---
Base Number (BN)	mg KOH/g	■ 6.3	---	---	---
Oxidation (PA)	%	■ 76	---	---	---

### Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Cylinder, crank, or cam shaft wear is indicated. Sodium and/or potassium levels are high. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## CONTAMINATION

Water	%	■ NEG	---	---	---
Soot %	%	■ 0.9	---	---	---
Nitration (PA)	%	■ 103	---	---	---
Sulfation (PA)	%	■ 59	---	---	---
Glycol	%	■ NEG	---	---	---
Fuel	%	■ 1.1	---	---	---
Silicon	ppm	▲ 61	---	---	---
Sodium	ppm	■ 14	---	---	---
Potassium	ppm	▲ 316	---	---	---

## WEAR METALS

Iron	ppm	▲ 127	---	---	---
Copper	ppm	■ 237	---	---	---
Lead	ppm	■ 4	---	---	---
Tin	ppm	■ 3	---	---	---
Aluminum	ppm	■ 8	---	---	---
Chromium	ppm	■ 3	---	---	---
Molybdenum	ppm	■ 190	---	---	---
Nickel	ppm	■ 2	---	---	---
Titanium	ppm	■ <1	---	---	---
Silver	ppm	■ <1	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	■ <1	---	---	---

## ADDITIVES

Calcium	ppm	■ 2519	---	---	---
Magnesium	ppm	■ 28	---	---	---
Zinc	ppm	■ 873	---	---	---
Phosphorus	ppm	■ 821	---	---	---
Barium	ppm	■ 10	---	---	---
Boron	ppm	■ 99	---	---	---

**Depot:** VOLVO0093  
**Unique No:** 10941025  
**Signed:** Jonathan Hester  
**Report Date:** 27 Mar 2024

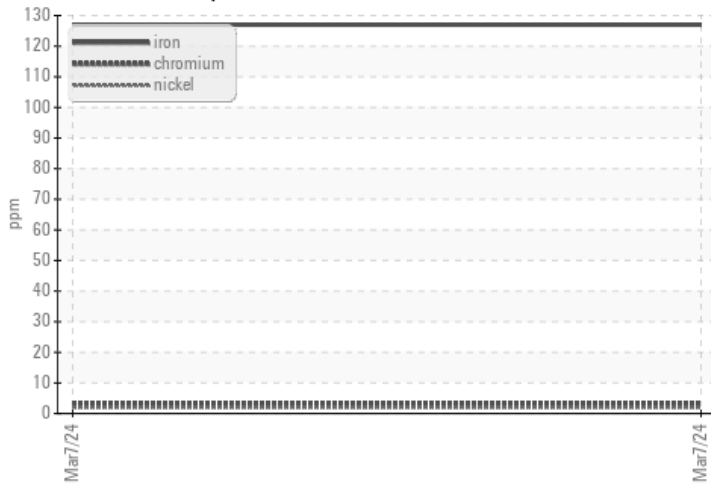


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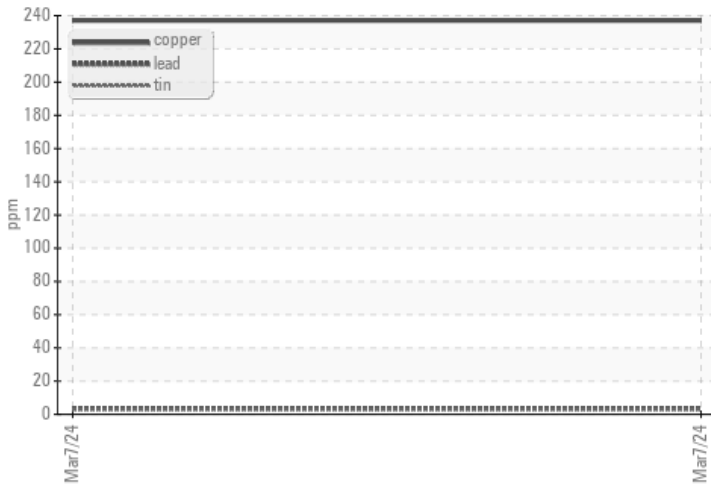


## GRAPHS

### ▲ Ferrous Alloys



### Non-ferrous Metals



### ● Viscosity @ 100°C



### Base Number

