



# CONSTRUCTION EQUIPMENT

## 621032 APTIM VOLVO A35G 340083 - DIESEL ENGINE



**Sample No:** VCP432140  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 621032 APTIM



### SAMPLE INFORMATION

Sample Number	VCP432140	VCP395732	VCP340004	---
Sample Date	24 Oct 2023	08 Feb 2023	31 Aug 2022	---
Machine Hours	5943	5438	4966	---
Oil Hours	500	500	500	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	ATTENTION	NORMAL	---

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### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	▲ 12.3	■ 12.6	---
Base Number (BN)	mg KOH/g	■ 9.3	■ 9.5	■ 9.7	---
Oxidation (PA)	%	79	80	94	---



### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	■ 0.4	■ 0.3	■ 0.5	---
Nitration (PA)	%	64	68	89	---
Sulfation (PA)	%	60	61	69	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	■ 0.9	<1.0	---
Silicon	ppm	▲ 23	■ 5	■ 4	---
Sodium	ppm	■ 3	■ 2	■ 3	---
Potassium	ppm	■ 0	■ 0	■ <1	---



### WEAR METALS

Iron	ppm	■ 20	■ 19	■ 20	---
Copper	ppm	■ 2	■ 1	■ 2	---
Lead	ppm	■ <1	■ 1	■ 1	---
Tin	ppm	■ 1	■ 1	■ 2	---
Aluminum	ppm	▲ 6	■ 2	■ 4	---
Chromium	ppm	■ <1	■ <1	■ <1	---
Molybdenum	ppm	■ 41	■ 40	■ 38	---
Nickel	ppm	■ 1	■ <1	■ 0	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	■ 0	■ 0	<1	---
Manganese	ppm	■ 1	■ <1	■ <1	---
Vanadium	ppm	<1	0	<1	---



### ADDITIVES

Calcium	ppm	■ 1572	■ 1592	■ 1522	---
Magnesium	ppm	■ 505	■ 489	■ 448	---
Zinc	ppm	■ 1086	■ 1041	■ 1027	---
Phosphorus	ppm	■ 904	■ 843	■ 846	---
Barium	ppm	■ 0	■ 0	■ 3	---
Boron	ppm	■ 33	■ 29	■ 18	---

### Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. 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. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

**Depot:** VOLVO0093  
**Unique No:** 10752972  
**Signed:** Don Baldrige  
**Report Date:** 23 Nov 2023



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## GRAPHS

