



# CONSTRUCTION EQUIPMENT

## WO7013038 VOLVO A35G 342035 - DIESEL ENGINE



**Sample No:** VCP418140  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** WO7013038



### SAMPLE INFORMATION

Sample Number	<b>VCP418140</b>	VCP423620	VCP401326	VCP388175
Sample Date	<b>03 Aug 2023</b>	25 Apr 2023	06 Feb 2023	06 Oct 2022
Machine Hours	<b>8716</b>	8115	7619	7137
Oil Hours	<b>500</b>	0	500	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	ATTENTION	ATTENTION	NORMAL

**McClung-Logan Virginia LLC- RICHMOND**  
 1345 MOUNTAIN ROAD  
 GLEN ALLEN, VA  
 US 23060  
 Contact: KYLE RATLIFFE  
 KRATLIFFE@MCCLUNG-LOGAN.COM  
 T:  
 F: (804)266-1611



### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.3</b>	▲ 12.1	▲ 12.2	■ 12.7
Base Number (BN)	mg KOH/g	<b>■ 7.0</b>	■ 5.0	■ 7.3	■ 8.6
Oxidation (PA)	%	<b>65</b>	40	67	76



### CONTAMINATION

Soot %	%	<b>■ 0.1</b>	■ 0.1	■ 0.1	■ 0.2
Nitration (PA)	%	<b>74</b>	57	78	88
Sulfation (PA)	%	<b>52</b>	43	54	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	■ 0.4	<1.0
Silicon	ppm	<b>■ 4</b>	■ 3	■ 6	■ 5
Sodium	ppm	<b>■ 5</b>	■ 10	■ 22	■ 75
Potassium	ppm	<b>■ &lt;1</b>	■ <1	■ 2	■ 6

### Diagnosis

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 no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



### WEAR METALS

Iron	ppm	<b>■ 5</b>	■ 5	■ 8	■ 9
Copper	ppm	<b>■ &lt;1</b>	■ 2	■ 2	■ 2
Lead	ppm	<b>■ &lt;1</b>	■ 0	■ 1	■ <1
Tin	ppm	<b>■ &lt;1</b>	■ 0	■ <1	■ <1
Aluminum	ppm	<b>■ 1</b>	■ 2	■ 3	■ 3
Chromium	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	<b>■ 46</b>	■ 22	■ 64	■ 52
Nickel	ppm	<b>■ 0</b>	■ <1	■ 2	■ <1
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>■ 1368</b>	■ 2124	■ 1229	■ 1209
Magnesium	ppm	<b>717</b>	94	■ 760	■ 767
Zinc	ppm	<b>■ 921</b>	■ 1089	■ 931	■ 852
Phosphorus	ppm	<b>■ 719</b>	■ 912	■ 662	■ 669
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ 22</b>	■ 10	■ 29	■ 16

**Depot:** VOLVO8882  
**Unique No:** 10603835  
**Signed:** Don Baldrige  
**Report Date:** 15 Aug 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

