



# CONSTRUCTION EQUIPMENT

## SWO-069182 VOLVO A45G 352639 - DIESEL ENGINE



**Sample No:** VCP441454  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-069182



### SAMPLE INFORMATION

Sample Number	<b>VCP441454</b>	VCP427458	VCP406861	VCP410476
Sample Date	<b>24 Jan 2024</b>	23 Oct 2023	07 Aug 2023	12 May 2023
Machine Hours	<b>5434</b>	4956	4377	3923
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	NORMAL	NORMAL	NORMAL

### SAIIA CONSTRUCTION LLC

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.2</b>	■ 13.1	■ 12.5	■ 12.9
Base Number (BN)	mg KOH/g	<b>■ 10.9</b>	■ 8.6	■ 10.6	■ 10.5
Oxidation (PA)	%	<b>73</b>	60	79	81

### 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. Light fuel dilution occurring. 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	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>■ 0.2</b>	■ 0.1	■ 0.2	■ 0.2
Nitration (PA)	%	<b>56</b>	52	53	58
Sulfation (PA)	%	<b>55</b>	51	60	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>■ 0.5</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>■ 4</b>	■ 3	■ 3	■ 4
Sodium	ppm	<b>■ 1</b>	■ <1	■ 0	■ 2
Potassium	ppm	<b>■ 2</b>	■ 0	■ <1	■ 0



### WEAR METALS

Iron	ppm	<b>■ 5</b>	■ 2	■ 4	■ 7
Copper	ppm	<b>■ 1</b>	■ 1	■ 5	■ 1
Lead	ppm	<b>■ 1</b>	■ <1	■ <1	■ 0
Tin	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Aluminum	ppm	<b>■ 2</b>	■ 1	■ <1	■ 3
Chromium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Molybdenum	ppm	<b>■ 41</b>	■ 49	■ 44	■ 41
Nickel	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>■ &lt;1</b>	■ 0	■ <1	■ 0
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>■ 1688</b>	■ 1182	■ 1795	■ 1749
Magnesium	ppm	<b>■ 533</b>	■ 774	■ 491	■ 515
Zinc	ppm	<b>■ 1167</b>	■ 1181	■ 1156	■ 1134
Phosphorus	ppm	<b>■ 1001</b>	■ 980	■ 980	■ 931
Barium	ppm	<b>■ 0</b>	■ 0	■ 2	■ 0
Boron	ppm	<b>■ 71</b>	■ 20	■ 65	■ 59

**Depot:** SAIBIR  
**Unique No:** 10849232  
**Signed:** Jonathan Hester  
**Report Date:** 31 Jan 2024



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## GRAPHS

