



# CONSTRUCTION EQUIPMENT

## SWO-069192 VOLVO A60H 340044 - DIESEL ENGINE



**Sample No:** VCP446728  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-069192



### SAMPLE INFORMATION

Sample Number	<b>VCP446728</b>	VCP383715	VCP411751	VCP410186
Sample Date	<b>01 Feb 2024</b>	21 Aug 2023	04 Aug 2023	11 May 2023
Machine Hours	<b>9302</b>	8811	8791	8303
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Not Chngd	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	ABNORMAL	NORMAL

### SAIIA CONSTRUCTION LLC

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.4</b>	■ 13.8	■ 12.6	■ 12.6
Base Number (BN)	mg KOH/g	■ <b>10.2</b>	■ 9.5	■ 10.4	■ 10.2
Oxidation (PA)	%	<b>74</b>	55	79	79

### 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. 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	■ <b>0.2</b>	■ 0.2	■ 1	■ 0.7
Nitration (PA)	%	<b>44</b>	43	63	63
Sulfation (PA)	%	<b>59</b>	50	64	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	■ <b>1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>▲ 30</b>	■ 10	<b>▲ 87</b>	■ 24
Sodium	ppm	■ <b>30</b>	■ <1	■ 0	■ 3
Potassium	ppm	■ <b>23</b>	■ <1	■ 10	■ <1



### WEAR METALS

Iron	ppm	■ <b>4</b>	■ 8	■ 58	■ 26
Copper	ppm	■ <b>&lt;1</b>	■ <1	■ 3	■ 2
Lead	ppm	■ <b>0</b>	■ <1	■ 5	■ 1
Tin	ppm	■ <b>0</b>	■ <1	■ 2	■ 1
Aluminum	ppm	■ <b>2</b>	■ 5	<b>▲ 47</b>	■ 17
Chromium	ppm	■ <b>&lt;1</b>	■ <1	■ 1	■ <1
Molybdenum	ppm	■ <b>43</b>	■ 53	■ 39	■ 42
Nickel	ppm	■ <b>0</b>	■ <1	■ 2	■ <1
Titanium	ppm	<b>0</b>	<1	■ 2	■ <1
Silver	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Manganese	ppm	■ <b>0</b>	■ <1	■ 2	■ <1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	■ <b>1528</b>	■ 1120	■ 1644	■ 1718
Magnesium	ppm	■ <b>493</b>	■ 763	■ 465	■ 514
Zinc	ppm	■ <b>1036</b>	■ 1106	■ 1029	■ 1074
Phosphorus	ppm	■ <b>816</b>	■ 963	■ 874	■ 875
Barium	ppm	■ <b>5</b>	■ 0	■ 2	■ 0
Boron	ppm	■ <b>63</b>	■ 12	■ 33	■ 44

**Depot:** SAIBIR  
**Unique No:** 10863274  
**Signed:** Jonathan Hester  
**Report Date:** 08 Feb 2024

**VOLVO** **GRAPHS**

