



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352909 - DIESEL ENGINE



**Sample No:** VCP454361  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP454361</b>	VCP443332	VCP437881	VCP431824
Sample Date	<b>02 Jul 2024</b>	02 Jul 2024	01 Mar 2024	28 Nov 2023
Machine Hours	<b>1326</b>	4610	4219	3745
Oil Hours	<b>0</b>	0	500	0
Oil Changed	<b>Changed</b>	Changed	Changed	N/A
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT COMPANY**  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.3</b>	12.0	12.7	12.8
Base Number (BN)	mg KOH/g	<b>7.8</b>	9.9	9.1	9.5
Oxidation (PA)	%	<b>82</b>	68	76	80



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.2	0.3	0.3
Nitration (PA)	%	<b>80</b>	56	68	63
Sulfation (PA)	%	<b>63</b>	55	58	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.3	<1.0	<1.0
Silicon	ppm	<b>7</b>	4	5	6
Sodium	ppm	<b>3</b>	1	2	6
Potassium	ppm	<b>2</b>	1	2	53



### WEAR METALS

Iron	ppm	<b>10</b>	4	8	55
Copper	ppm	<b>40</b>	5	2	94
Lead	ppm	<b>&lt;1</b>	0	<1	0
Tin	ppm	<b>1</b>	0	1	2
Aluminum	ppm	<b>2</b>	2	5	23
Chromium	ppm	<b>0</b>	<1	<1	4
Molybdenum	ppm	<b>49</b>	40	43	62
Nickel	ppm	<b>&lt;1</b>	<1	3	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	0	<1	2
Vanadium	ppm	<b>0</b>	0	<1	0



### ADDITIVES

Calcium	ppm	<b>1825</b>	1413	1568	1274
Magnesium	ppm	<b>452</b>	555	565	863
Zinc	ppm	<b>1149</b>	1078	1108	1150
Phosphorus	ppm	<b>962</b>	901	926	923
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>25</b>	48	27	8

### Diagnosis

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

**Depot:** VOLVO0090  
**Unique No:** 1113284  
**Signed:** Sean Felton  
**Report Date:** 09 Jul 2024

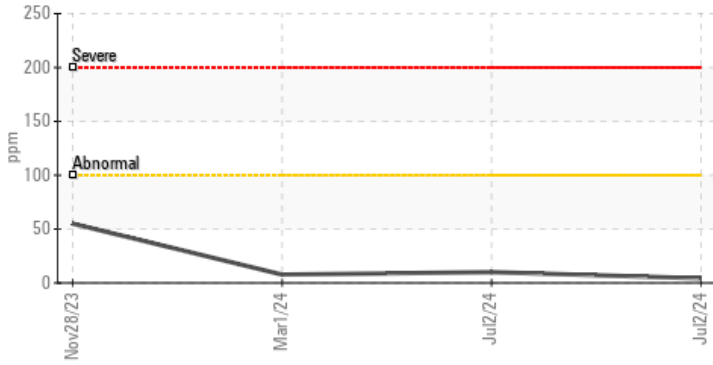


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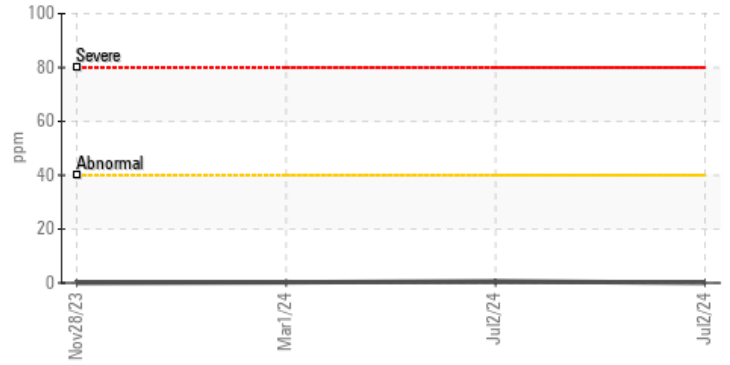


## GRAPHS

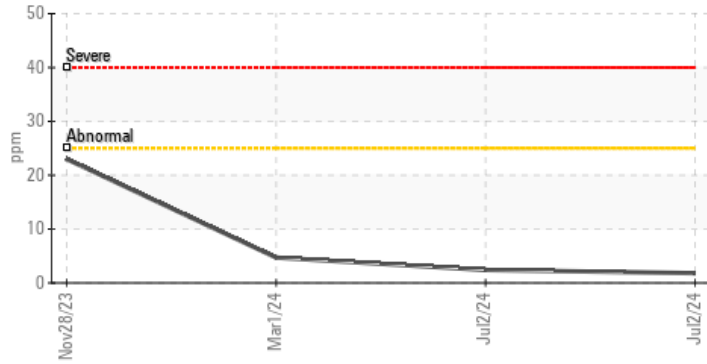
### Iron (ppm)



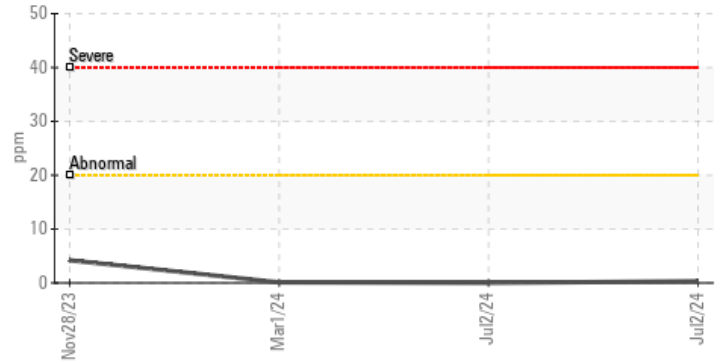
### Lead (ppm)



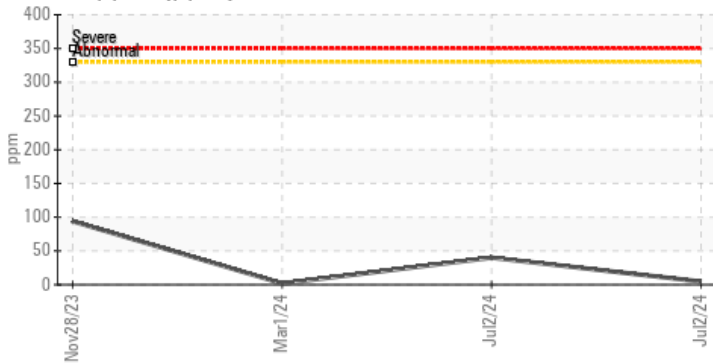
### Aluminum (ppm)



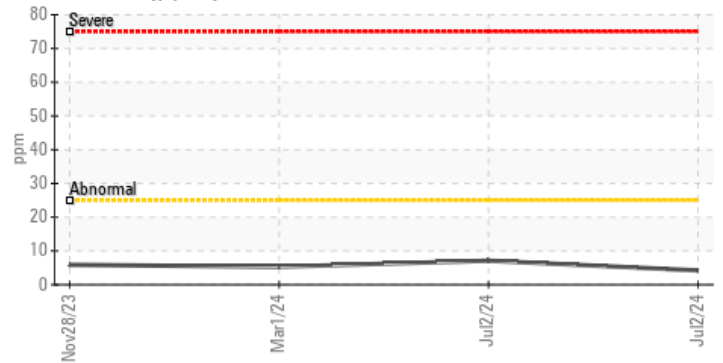
### Chromium (ppm)



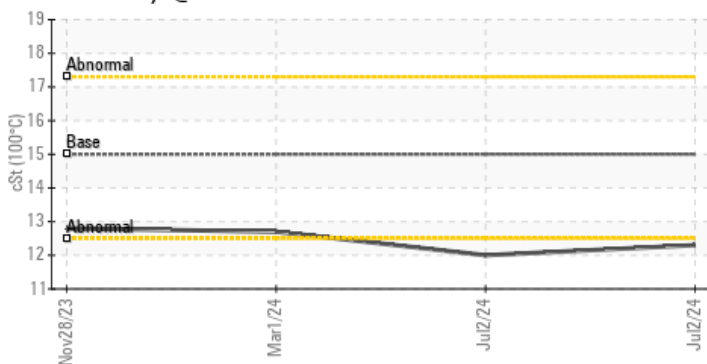
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

