



# CONSTRUCTION EQUIPMENT

## VOLVO A40D 7032Z - DIESEL ENGINE



**Sample No:** VCP419850  
**Oil Type:** MOBIL 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP419850</b>	VCP386160	VCP373568	VCP386547
Sample Date	<b>01 Aug 2023</b>	10 May 2023	27 Mar 2023	28 Feb 2023
Machine Hours	<b>26925</b>	26649	26356	26188
Oil Hours	<b>276</b>	293	168	254
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.8</b>	12.8	12.8	12.7
Base Number (BN)	mg KOH/g	<b>10.3</b>	9.9	10.3	10.1
Oxidation (PA)	%	<b>79</b>	81	78	78



### CONTAMINATION

Soot %	%	<b>0.2</b>	0.3	0.2	0.2
Nitration (PA)	%	<b>48</b>	51	47	50
Sulfation (PA)	%	<b>61</b>	62	61	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	6	5	5
Sodium	ppm	<b>3</b>	3	2	4
Potassium	ppm	<b>0</b>	4	0	2



### WEAR METALS

Iron	ppm	<b>4</b>	5	2	5
Copper	ppm	<b>&lt;1</b>	<1	0	<1
Lead	ppm	<b>&lt;1</b>	2	0	<1
Tin	ppm	<b>0</b>	<1	0	0
Aluminum	ppm	<b>&lt;1</b>	2	<1	2
Chromium	ppm	<b>0</b>	<1	0	<1
Molybdenum	ppm	<b>40</b>	41	41	39
Nickel	ppm	<b>0</b>	<1	0	0
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1700</b>	1805	1606	1656
Magnesium	ppm	<b>502</b>	562	473	472
Zinc	ppm	<b>884</b>	1015	848	871
Phosphorus	ppm	<b>760</b>	784	715	737
Barium	ppm	<b>0</b>	0	0	2
Boron	ppm	<b>61</b>	63	62	66

### 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:** SCHGRE  
**Unique No:** 10617107  
**Signed:** Wes Davis  
**Report Date:** 24 Aug 2023

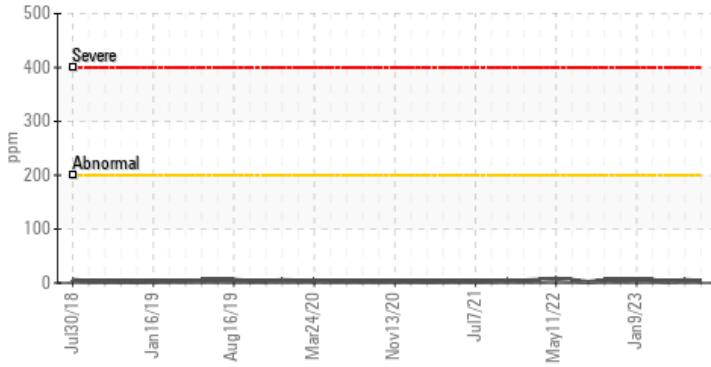


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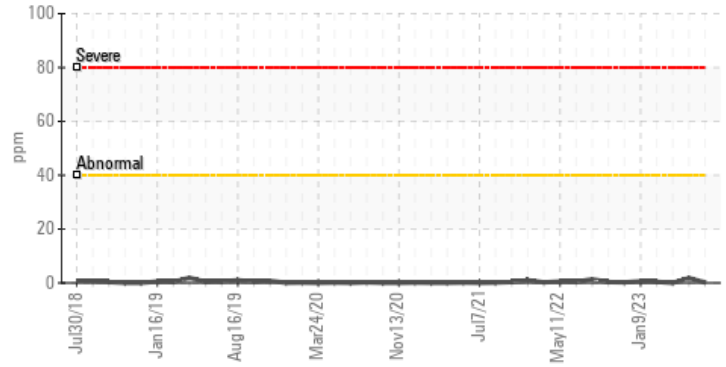


## GRAPHS

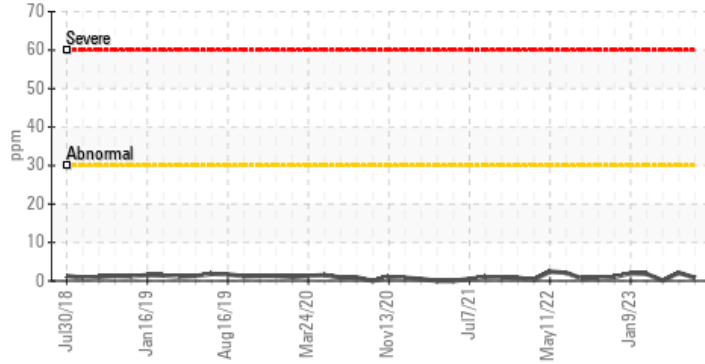
### Iron (ppm)



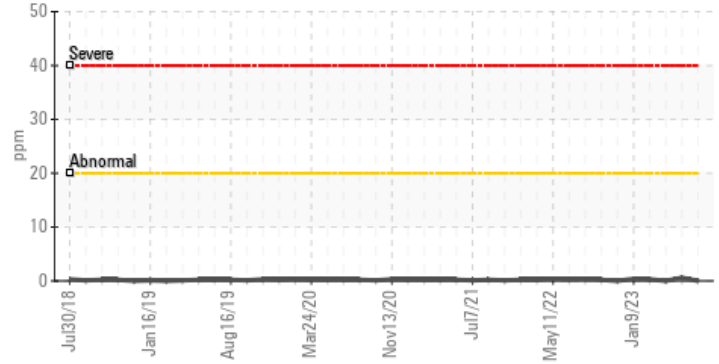
### Lead (ppm)



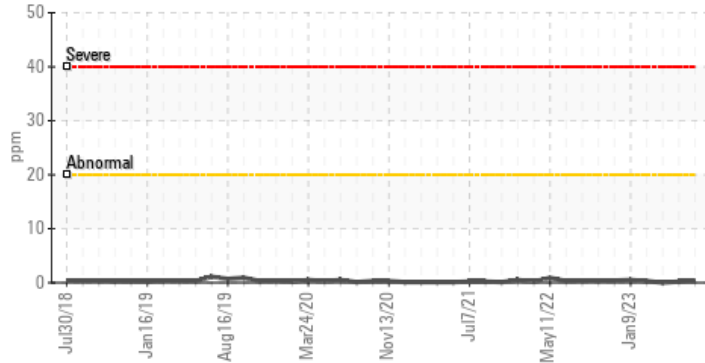
### Aluminum (ppm)



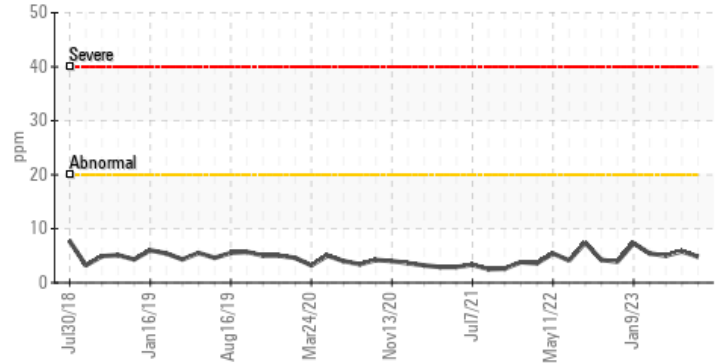
### Chromium (ppm)



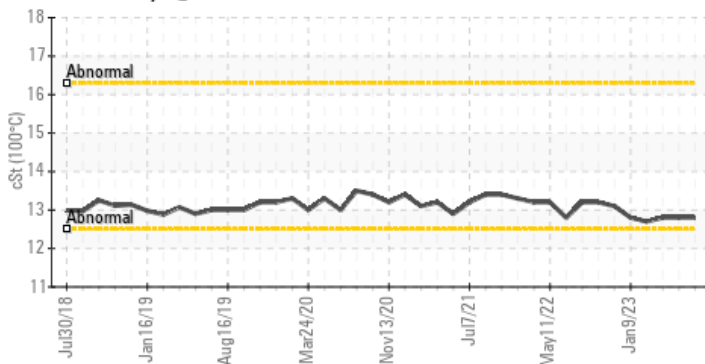
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

