



# CONSTRUCTION EQUIPMENT

## VOLVO A40F 12382 - DIESEL ENGINE



**Sample No:** VCP447652  
**Oil Type:** MOBIL 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP447652</b>	VCP435805	VCP433628	VCP307505
Sample Date	<b>18 Jun 2024</b>	22 Apr 2024	19 Mar 2024	30 Jan 2024
Machine Hours	<b>15481</b>	15127	14875	14544
Oil Hours	<b>354</b>	252	331	286
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.6</b>	12.7	12.7	12.8
Base Number (BN)	mg KOH/g	<b>10.2</b>	8.9	7.1	7.1
Oxidation (PA)	%	<b>77</b>	68	58	58

### 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.2	0.3	0.3
Nitration (PA)	%	<b>56</b>	55	70	68
Sulfation (PA)	%	<b>60</b>	57	50	50
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>16</b>	10	12	21
Sodium	ppm	<b>3</b>	2	3	4
Potassium	ppm	<b>2</b>	2	2	3



### WEAR METALS

Iron	ppm	<b>12</b>	6	7	11
Copper	ppm	<b>&lt;1</b>	<1	1	2
Lead	ppm	<b>&lt;1</b>	<1	<1	<1
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>6</b>	4	8	10
Chromium	ppm	<b>&lt;1</b>	<1	0	<1
Molybdenum	ppm	<b>49</b>	65	117	122
Nickel	ppm	<b>&lt;1</b>	<1	1	1
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	<1	<1
Vanadium	ppm	<b>0</b>	<1	<1	<1



### ADDITIVES

Calcium	ppm	<b>1835</b>	1532	1291	1039
Magnesium	ppm	<b>572</b>	536	655	573
Zinc	ppm	<b>1056</b>	899	839	747
Phosphorus	ppm	<b>902</b>	770	710	583
Barium	ppm	<b>0</b>	0	0	34
Boron	ppm	<b>59</b>	86	119	105

**Depot:** SCHGRE  
**Unique No:** 11110464  
**Signed:** Don Baldrige  
**Report Date:** 05 Jul 2024

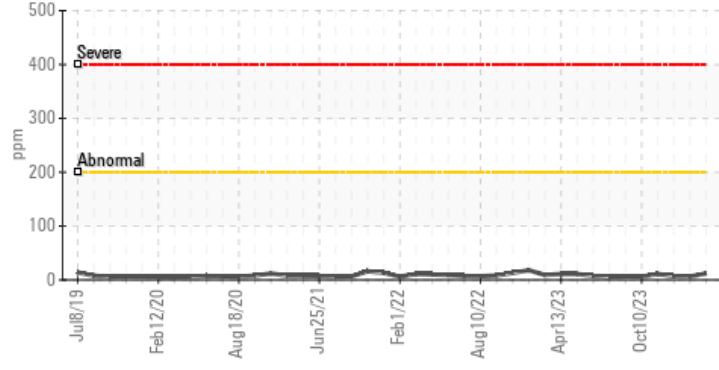


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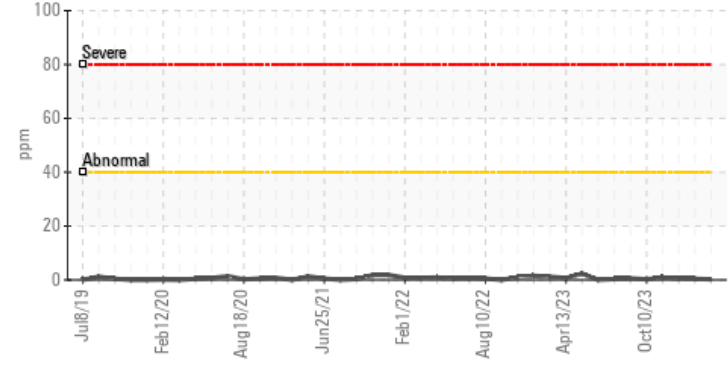


## GRAPHS

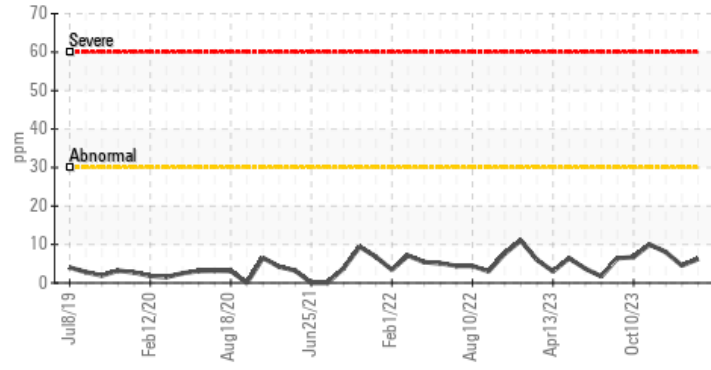
### Iron (ppm)



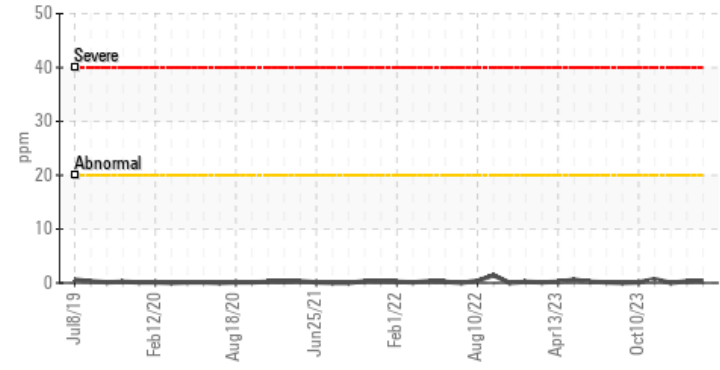
### Lead (ppm)



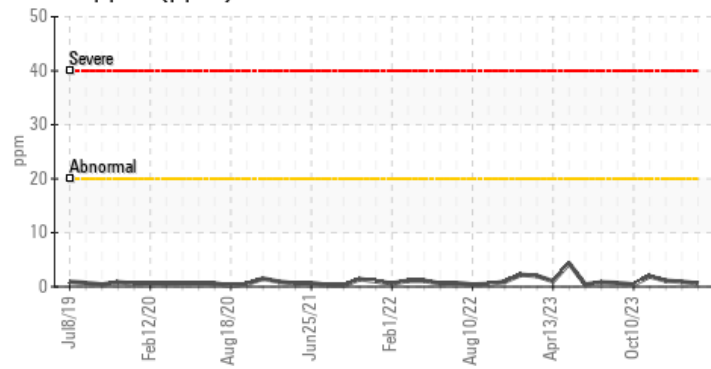
### Aluminum (ppm)



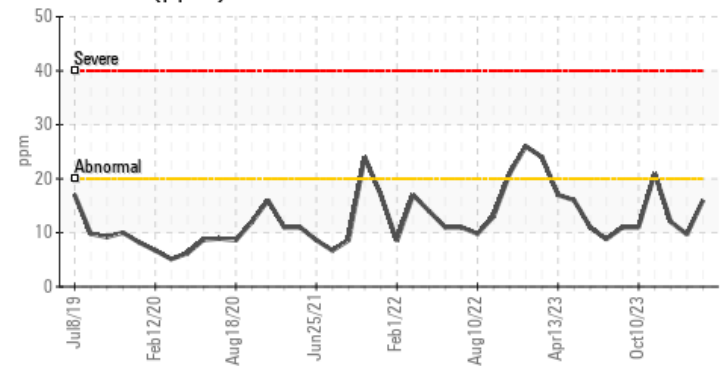
### Chromium (ppm)



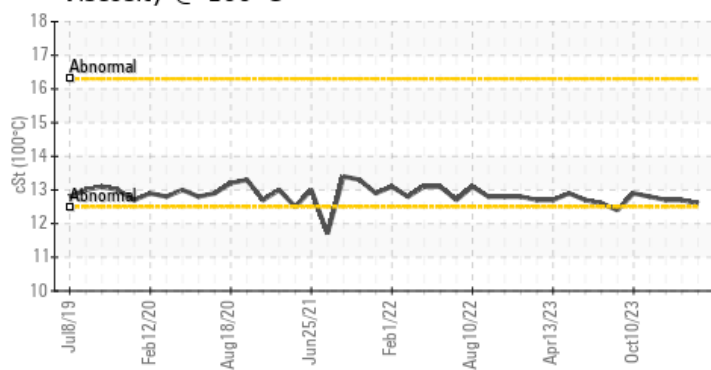
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

