



# CONSTRUCTION EQUIPMENT

## VOLVO L120H 632787 - DIESEL ENGINE



**Sample No:** VCP451240  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



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### SAMPLE INFORMATION

Sample Number	<b>VCP451240</b>	VCP341492	VCP386245	VCP378697
Sample Date	<b>17 Jun 2024</b>	22 Mar 2023	01 Dec 2022	19 Jul 2022
Machine Hours	<b>7837</b>	6093	5512	4901
Oil Hours	<b>0</b>	500	500	500
Oil Changed	<b>N/A</b>	Changed	Changed	Changed
Sample Status	<b>SEVERE</b>	NORMAL	NORMAL	NORMAL



### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 7.8</b>	■ 13.1	■ 13.7	■ 13.4
Base Number (BN)	mg KOH/g	■ <b>9.2</b>	■ 10.1	■ 10.5	■ 11.6
Oxidation (PA)	%	<b>71</b>	82	73	82



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	■ <b>0.5</b>	■ 0.4	■ 0.5	■ 0.2
Nitration (PA)	%	<b>72</b>	74	80	58
Sulfation (PA)	%	<b>57</b>	61	61	65
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>▲ 14.2</b>	<1.0	<1.0	<1.0
Silicon	ppm	■ <b>9</b>	■ 9	■ 11	■ 9
Sodium	ppm	■ <b>6</b>	■ 2	■ <1	■ 0
Potassium	ppm	■ <b>1</b>	■ <1	■ 1	■ 0



### WEAR METALS

Iron	ppm	■ <b>16</b>	■ 16	■ 16	■ 18
Copper	ppm	■ <b>2</b>	■ 1	■ 2	■ <1
Lead	ppm	■ <b>2</b>	■ 0	■ <1	■ <1
Tin	ppm	■ <b>0</b>	■ <1	■ 1	■ 0
Aluminum	ppm	■ <b>9</b>	■ 11	■ 15	■ 3
Chromium	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	■ <b>33</b>	■ 71	■ 64	■ 43
Nickel	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	■ <b>0</b>	■ 0	■ 0	■ <1
Manganese	ppm	■ <b>0</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	■ <b>1365</b>	■ 1716	■ 1302	■ 1553
Magnesium	ppm	■ <b>411</b>	■ 649	942	■ 506
Zinc	ppm	■ <b>862</b>	■ 1240	■ 1358	■ 1021
Phosphorus	ppm	■ <b>758</b>	■ 1034	■ 1121	■ 850
Barium	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Boron	ppm	■ <b>18</b>	■ 32	■ 4	■ 44

### Diagnosis

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** VOLVO0093  
**Unique No:** 11087206  
**Signed:** Wes Davis  
**Report Date:** 21 Jun 2024

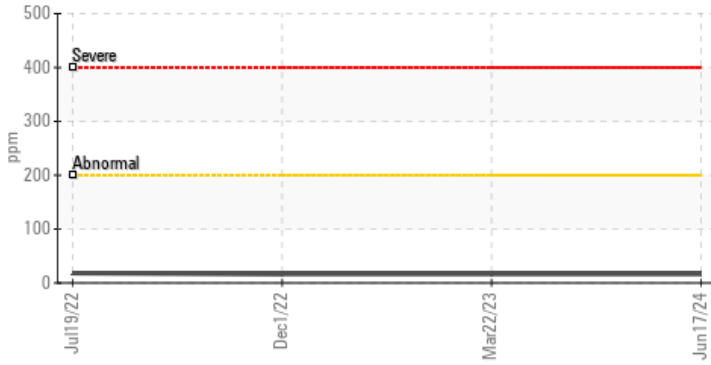


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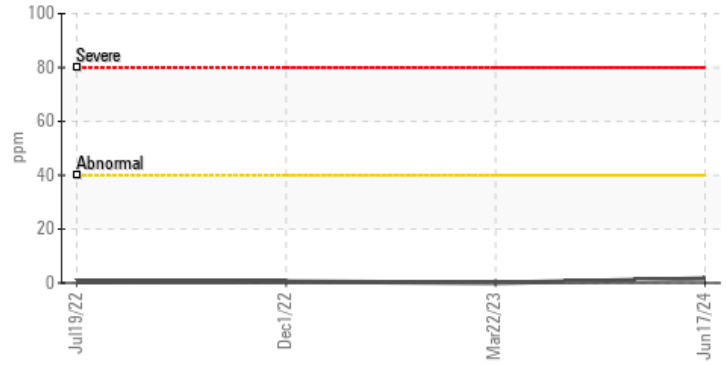


## GRAPHS

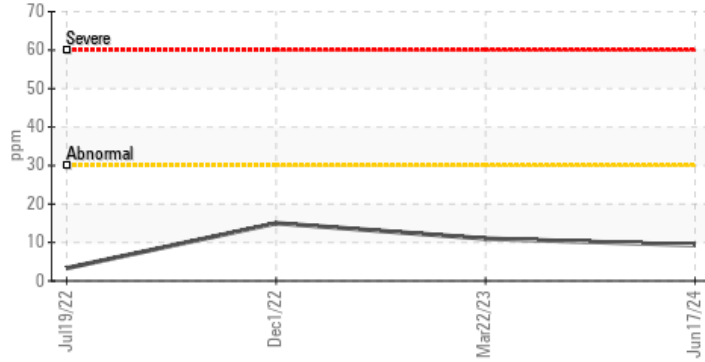
### Iron (ppm)



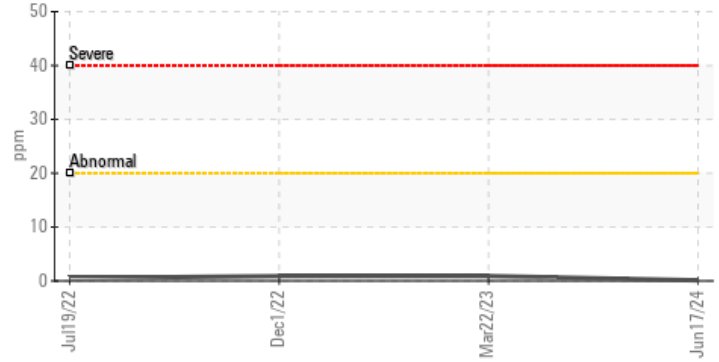
### Lead (ppm)



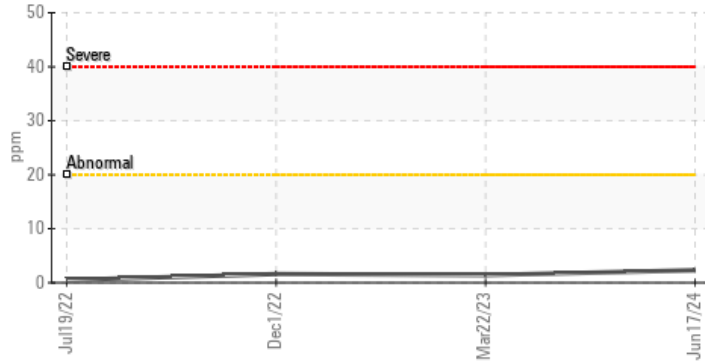
### Aluminum (ppm)



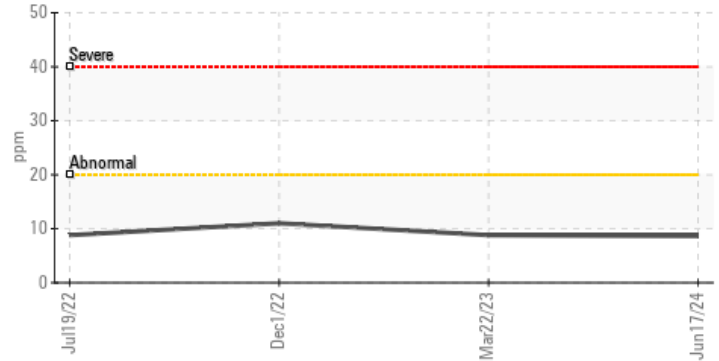
### Chromium (ppm)



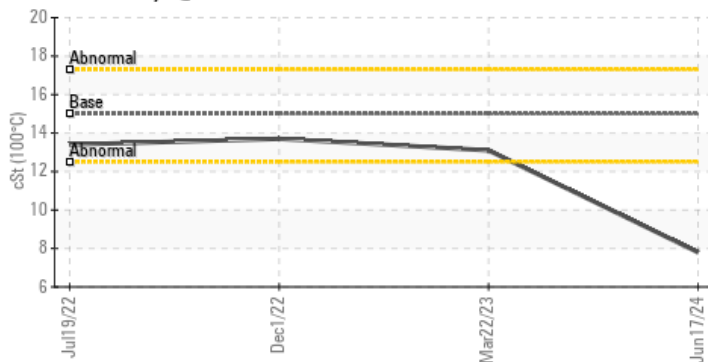
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number

