



# CONSTRUCTION EQUIPMENT

## 742409 FERROUS VOLVO L220H 20-01 (S/N 3255) - DIESEL ENGINE



**Sample No:** VCP454798  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 742409 FERROUS



### SAMPLE INFORMATION

Sample Number	VCP454798	VCP318370	VCP315504	---
Sample Date	08 Jul 2024	12 Aug 2021	01 Jul 2021	---
Machine Hours	11179	4537	4006	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	NORMAL	NORMAL	---

### ALTA EQUIPMENT COMPANY

5210 REESE ROAD  
 DAVIE, FL  
 US 33314

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### OIL CONDITION

Visc @ 100°C	cSt	█ 12.8	█ 12.9	█ 13.0	---
Base Number (BN)	mg KOH/g	█ 8.0	---	---	---
Oxidation (PA)	%	57	86	87	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other 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 acceptable for the time in service.



### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	█ 0.1	█ 0.1	█ 0.1	---
Nitration (PA)	%	56	56	62	---
Sulfation (PA)	%	53	66	67	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 5	█ 4	█ 3	---
Sodium	ppm	█ 4	█ 3	█ 2	---
Potassium	ppm	█ 5	█ 0	█ <1	---



### WEAR METALS

Iron	ppm	█ 9	█ 4	█ 5	---
Copper	ppm	▲ 36	█ 1	█ 2	---
Lead	ppm	█ 0	█ 0	█ <1	---
Tin	ppm	█ <1	█ <1	█ <1	---
Aluminum	ppm	█ 4	█ 0	█ <1	---
Chromium	ppm	█ <1	█ <1	█ <1	---
Molybdenum	ppm	█ 56	█ 42	█ 43	---
Nickel	ppm	█ 2	█ 0	█ <1	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	█ 0	0	<1	---
Manganese	ppm	█ 2	█ <1	█ <1	---
Vanadium	ppm	0	0	0	---



### ADDITIVES

Calcium	ppm	█ 1351	█ 1792	█ 1666	---
Magnesium	ppm	707	█ 524	█ 487	---
Zinc	ppm	█ 1097	█ 1072	█ 1137	---
Phosphorus	ppm	█ 919	█ 983	█ 927	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 12	█ 44	█ 47	---

**Depot:** VOLVO0095  
**Unique No:** 11127593  
**Signed:** Sean Felton  
**Report Date:** 18 Jul 2024

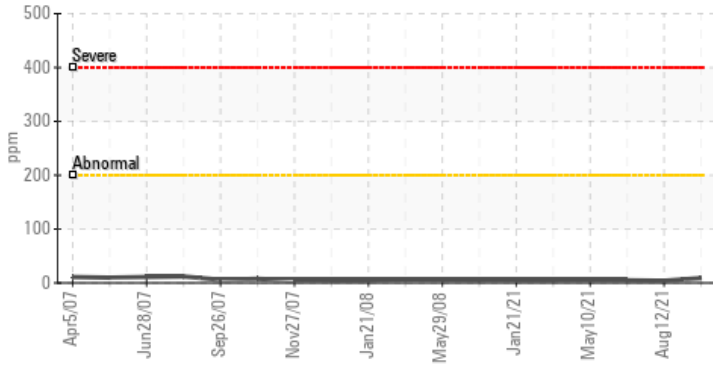


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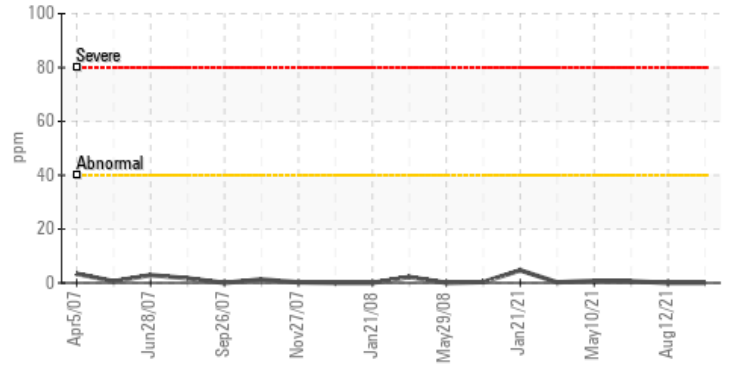


## GRAPHS

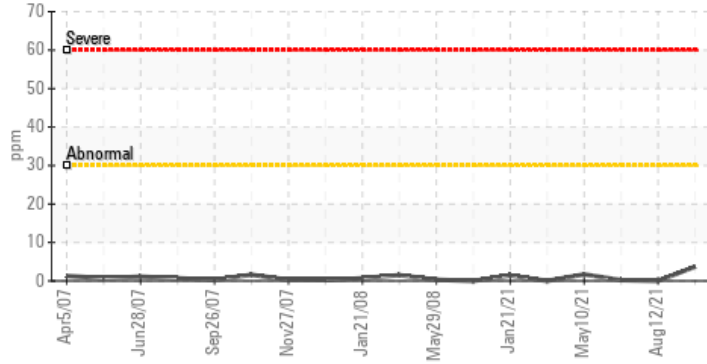
### Iron (ppm)



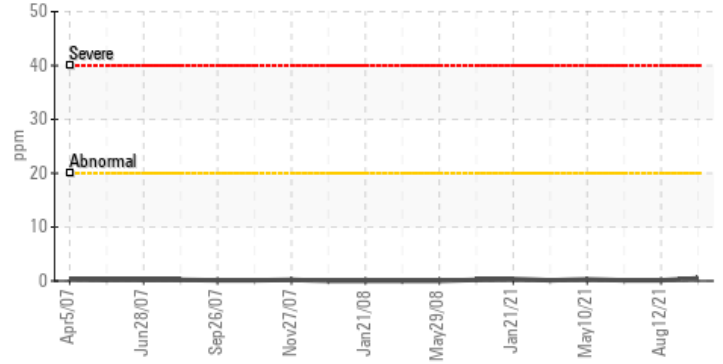
### Lead (ppm)



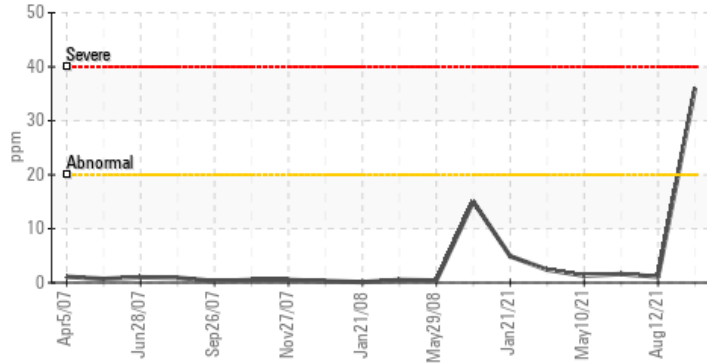
### Aluminum (ppm)



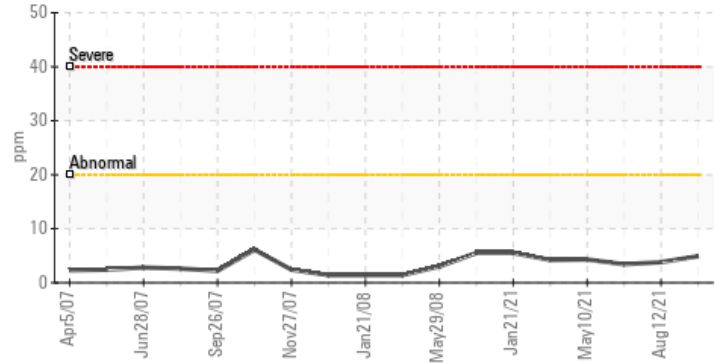
### Chromium (ppm)



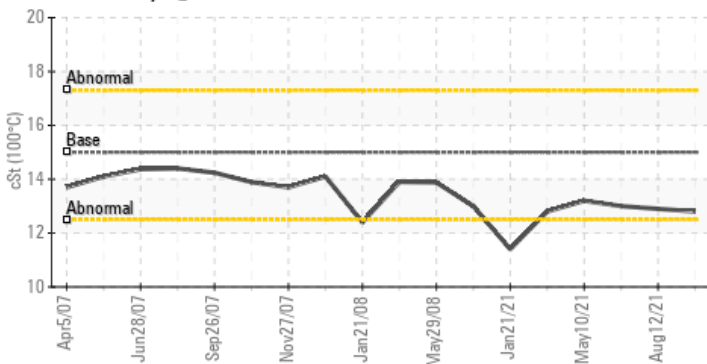
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

