



# CONSTRUCTION EQUIPMENT

589948-20 VOLVO EC220 315909 - DIESEL ENGINE



**Sample No:** VCP410050  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 589948-20



## SAMPLE INFORMATION

Sample Number	VCP410050	VCP445689	---	---
Sample Date	25 Jun 2024	18 Feb 2024	---	---
Machine Hours	1238	810	---	---
Oil Hours	400	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

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## OIL CONDITION

Visc @ 100°C	cSt	█ 13.3	█ 13.4	---	---
Base Number (BN)	mg KOH/g	█ 9.1	█ 5.8	---	---
Oxidation (PA)	%	59	55	---	---

## 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	%	NEG	NEG	---	---
Soot %	%	█ 0.1	█ 0.1	---	---
Nitration (PA)	%	63	66	---	---
Sulfation (PA)	%	53	58	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 7	█ 19	---	---
Sodium	ppm	█ 5	█ 2	---	---
Potassium	ppm	█ 2	█ 4	---	---

## WEAR METALS

Iron	ppm	█ 12	█ 24	---	---
Copper	ppm	█ 2	█ 10	---	---
Lead	ppm	█ <1	█ 1	---	---
Tin	ppm	█ <1	█ 3	---	---
Aluminum	ppm	█ 4	█ 3	---	---
Chromium	ppm	█ <1	█ 2	---	---
Molybdenum	ppm	█ 61	█ 36	---	---
Nickel	ppm	█ 1	█ 6	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ <1	█ 4	---	---
Vanadium	ppm	<1	<1	---	---

## ADDITIVES

Calcium	ppm	█ 1271	█ 1945	---	---
Magnesium	ppm	█ 1009	█ 144	---	---
Zinc	ppm	█ 1362	█ 1092	---	---
Phosphorus	ppm	█ 1063	█ 885	---	---
Barium	ppm	█ <1	█ 2	---	---
Boron	ppm	█ 6	█ 84	---	---

**Depot:** VOLVO0095  
**Unique No:** 11100177  
**Signed:** Don Baldrige  
**Report Date:** 28 Jun 2024

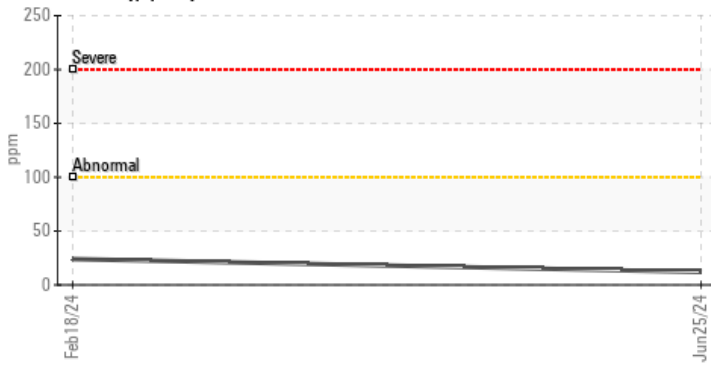


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## GRAPHS

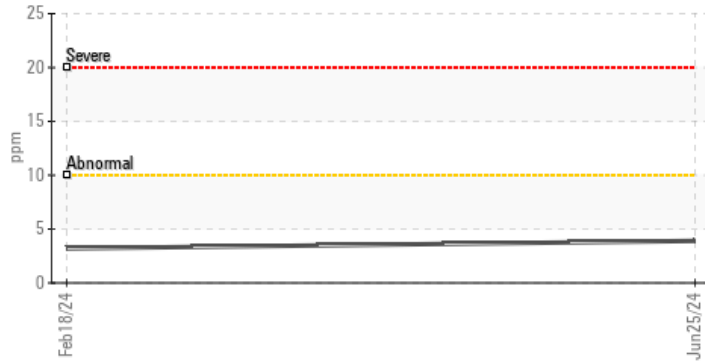
### Iron (ppm)



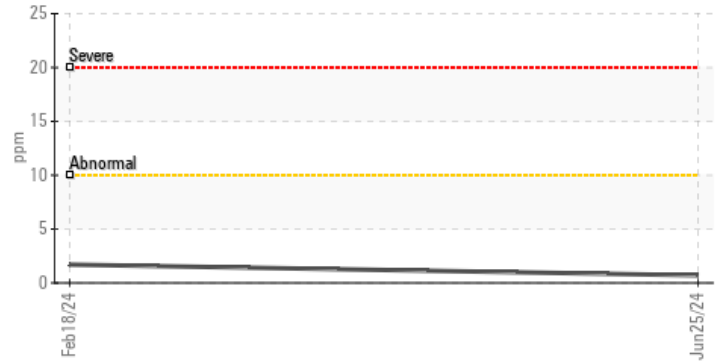
### Lead (ppm)



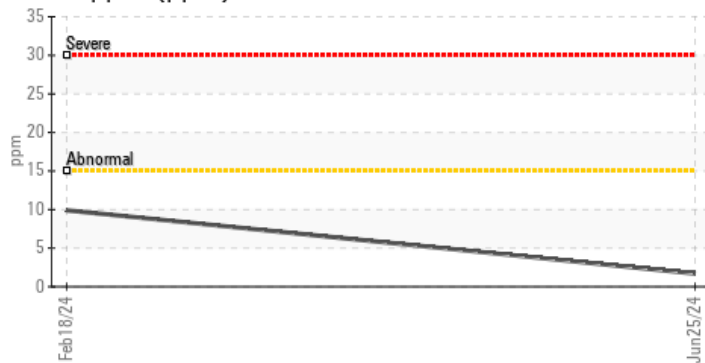
### Aluminum (ppm)



### Chromium (ppm)



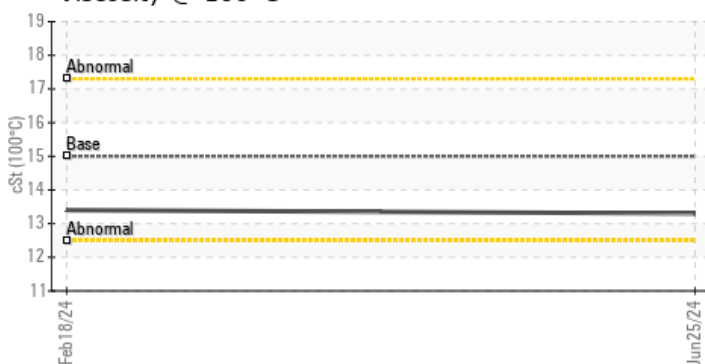
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

