



# CONSTRUCTION EQUIPMENT

581789 VOLVO L120H 632767 - DIESEL ENGINE



**Sample No:** VCP416409  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 581789



## SAMPLE INFORMATION

Sample Number	<b>VCP416409</b>	VCP376213	VCP315537	---
Sample Date	<b>03 Aug 2023</b>	28 Jul 2022	29 Jul 2021	---
Machine Hours	<b>4536</b>	2531	1479	---
Oil Hours	<b>500</b>	500	0	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	---

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC  
 8418 PALM RIVER ROAD  
 TAMPA, FL  
 US 33619  
 Contact: KENNY HANEY  
 khaney@flaglerce.com  
 T: (813)630-0077  
 F: (813)630-2233



## OIL CONDITION

Visc @ 100°C	cSt	<b>12.9</b>	13.1	13.6	---
Base Number (BN)	mg KOH/g	<b>9.3</b>	11.7	---	---
Oxidation (PA)	%	<b>84</b>	87	87	---



## CONTAMINATION

Soot %	%	<b>0.6</b>	0.2	0.4	---
Nitration (PA)	%	<b>78</b>	68	74	---
Sulfation (PA)	%	<b>61</b>	65	66	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>6</b>	5	7	---
Sodium	ppm	<b>3</b>	1	1	---
Potassium	ppm	<b>&lt;1</b>	<1	<1	---

## 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.



## WEAR METALS

Iron	ppm	<b>22</b>	10	27	---
Copper	ppm	<b>2</b>	2	5	---
Lead	ppm	<b>&lt;1</b>	<1	1	---
Tin	ppm	<b>1</b>	1	1	---
Aluminum	ppm	<b>19</b>	10	▲ 53	---
Chromium	ppm	<b>1</b>	<1	3	---
Molybdenum	ppm	<b>50</b>	40	49	---
Nickel	ppm	<b>0</b>	<1	<1	---
Titanium	ppm	<b>&lt;1</b>	<1	<1	---
Silver	ppm	<b>0</b>	0	<1	---
Manganese	ppm	<b>&lt;1</b>	<1	<1	---
Vanadium	ppm	<b>&lt;1</b>	0	<1	---



## ADDITIVES

Calcium	ppm	<b>1738</b>	1609	1855	---
Magnesium	ppm	<b>552</b>	485	510	---
Zinc	ppm	<b>1143</b>	1050	1115	---
Phosphorus	ppm	<b>929</b>	849	991	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>19</b>	32	42	---

**Depot:** VOLVO0093  
**Unique No:** 10615945  
**Signed:** Wes Davis  
**Report Date:** 22 Aug 2023

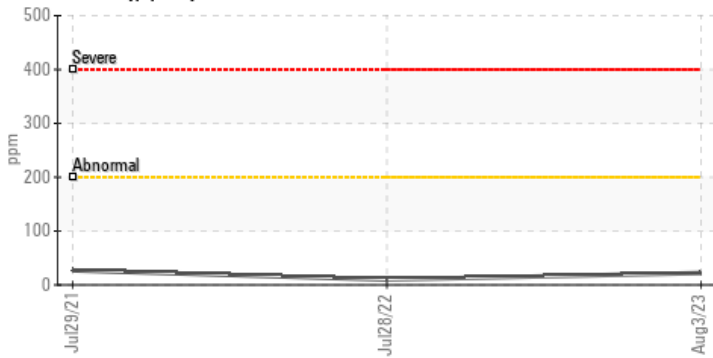


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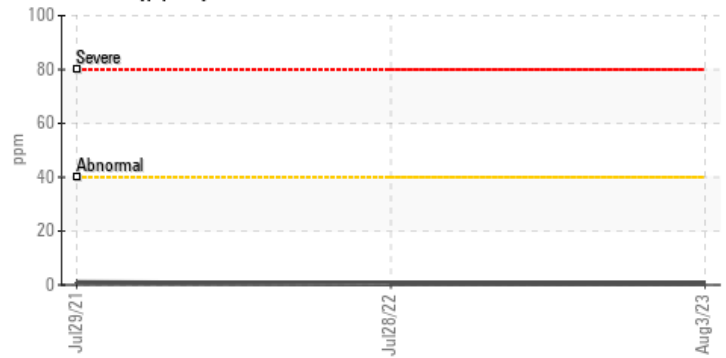


## GRAPHS

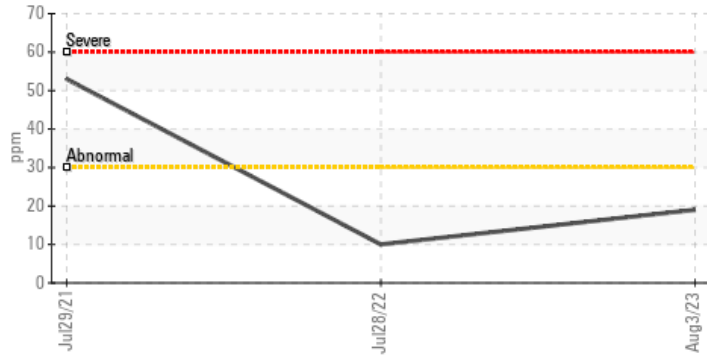
### Iron (ppm)



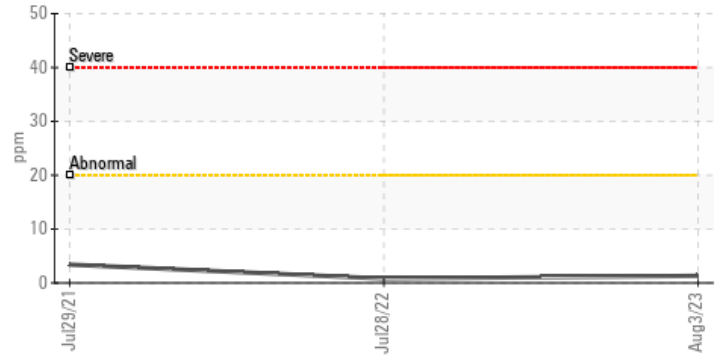
### Lead (ppm)



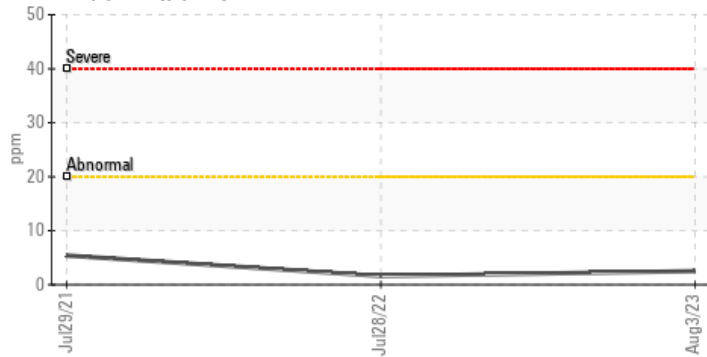
### Aluminum (ppm)



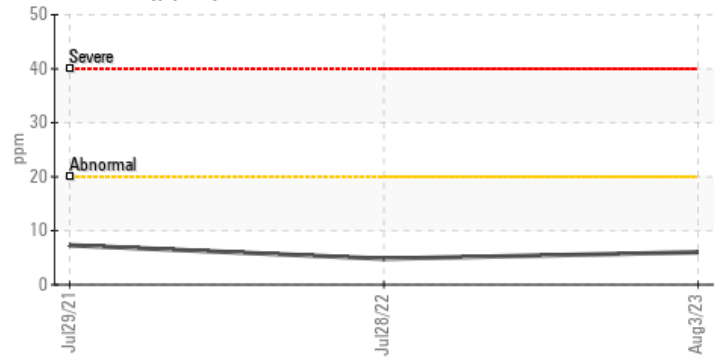
### Chromium (ppm)



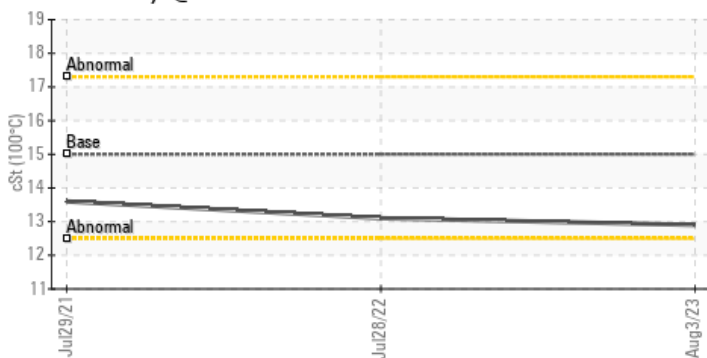
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

