



# CONSTRUCTION EQUIPMENT

## 2739-1 VOLVO L90G 3199 - DIESEL ENGINE



**Sample No:** VCP429481  
**Oil Type:** CHEVRON DELO 400 MULTIGRADE 15W40  
**Job No:** 2739-1



### SAMPLE INFORMATION

Sample Number	<b>VCP429481</b>	VCP408339	VCP408443	VCP390162
Sample Date	<b>06 Dec 2023</b>	26 Sep 2023	28 Jun 2023	28 Mar 2023
Machine Hours	<b>13995</b>	17537	16948	16484
Oil Hours	<b>500</b>	500	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.5</b>	13.7	13.7	13.6
Base Number (BN)	mg KOH/g	<b>7.7</b>	7.6	8.1	7.3
Oxidation (PA)	%	<b>62</b>	62	64	65

### 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>	0.3	0.3	0.4
Nitration (PA)	%	<b>57</b>	57	61	68
Sulfation (PA)	%	<b>60</b>	60	61	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>8</b>	8	8	8
Sodium	ppm	<b>&lt;1</b>	<1	1	0
Potassium	ppm	<b>&lt;1</b>	1	2	1

### WEAR METALS

Iron	ppm	<b>18</b>	21	22	28
Copper	ppm	<b>&lt;1</b>	<1	1	2
Lead	ppm	<b>0</b>	0	0	2
Tin	ppm	<b>&lt;1</b>	<1	<1	0
Aluminum	ppm	<b>10</b>	14	9	9
Chromium	ppm	<b>&lt;1</b>	<1	<1	1
Molybdenum	ppm	<b>83</b>	93	89	97
Nickel	ppm	<b>0</b>	<1	0	0
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1366</b>	1386	1481	1482
Magnesium	ppm	<b>409</b>	385	491	415
Zinc	ppm	<b>1303</b>	1270	1395	1163
Phosphorus	ppm	<b>1010</b>	1052	1122	1005
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>399</b>	410	456	388

**Depot:** VOLVO1023  
**Unique No:** 10792843  
**Signed:** Jonathan Hester  
**Report Date:** 20 Dec 2023

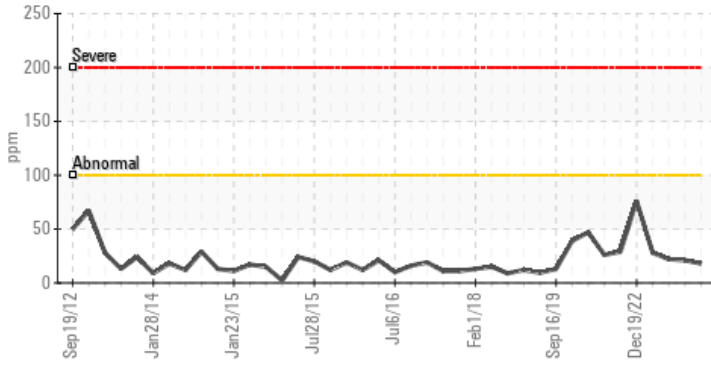


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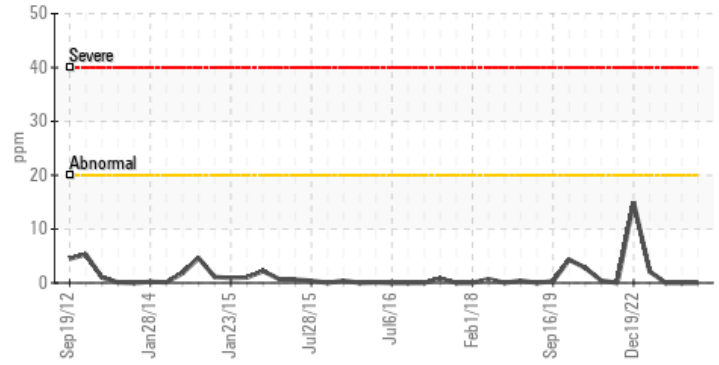


## GRAPHS

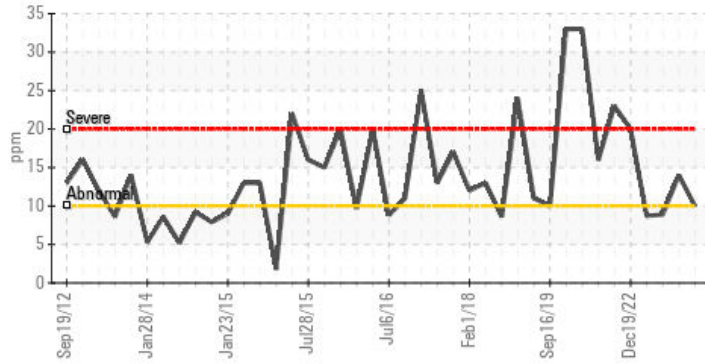
### Iron (ppm)



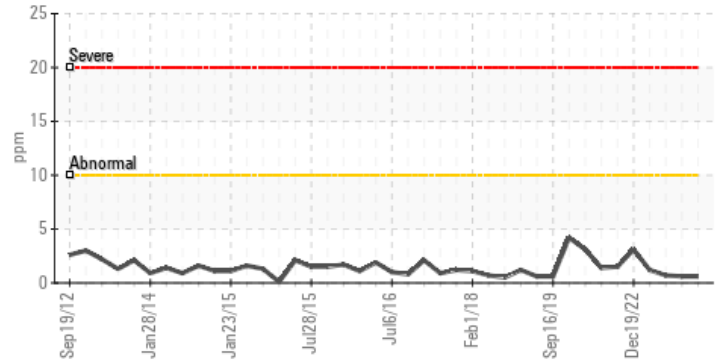
### Lead (ppm)



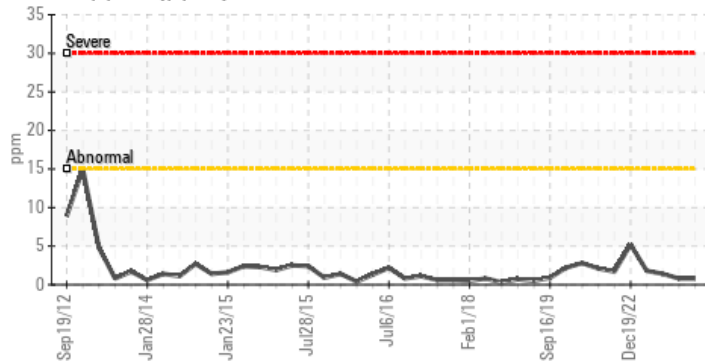
### Aluminum (ppm)



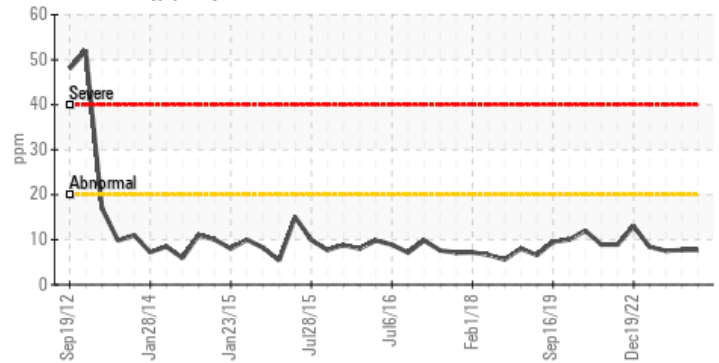
### Chromium (ppm)



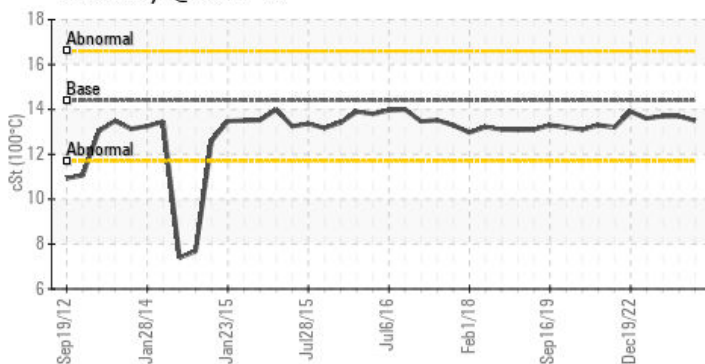
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

