



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 631231 - FRONT AXLE



**Sample No:** VCP440168

**Oil Type:** DIESEL ENGINE OIL SAE 15W40

**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP440168</b>	VCP432009	VCP435650	VCP420256
Sample Date	<b>20 Feb 2024</b>	20 Feb 2024	08 Nov 2023	28 Apr 2023
Machine Hours	<b>12527</b>	12827	12029	10851
Oil Hours	<b>0</b>	0	0	2000
Oil Changed	<b>Changed</b>	N/A	Not Changd	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
TAMPA, FL  
US 33619  
Contact: PM Services  
PMServices@ripaconstruction.com  
T:  
F:



### OIL CONDITION

Visc @ 40°C	cSt	<b>43.8</b>	41.5	43.08	43.5
-------------	-----	-------------	------	-------	------



### CONTAMINATION

Water	%	<b>0.344</b>	NEG	NEG	NEG
Silicon	ppm	<b>117</b>	14	12	17
Sodium	ppm	<b>2</b>	1	3	5
Potassium	ppm	<b>&lt;1</b>	<1	0	2



### WEAR METALS

Iron	ppm	<b>465</b>	57	24	125
Copper	ppm	<b>&lt;1</b>	0	<1	0
Lead	ppm	<b>2</b>	2	0	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>5</b>	<1	<1	2
Chromium	ppm	<b>3</b>	0	0	2
Molybdenum	ppm	<b>2</b>	<1	<1	2
Nickel	ppm	<b>2</b>	0	0	1
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>3</b>	<1	<1	4
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>4002</b>	4622	4060	4103
Magnesium	ppm	<b>17</b>	25	21	14
Zinc	ppm	<b>1539</b>	1972	1550	1629
Phosphorus	ppm	<b>1316</b>	1558	1246	1280
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>128</b>	137	132	141

### Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: one of two samples received with same ID and sampling date. Gear wear is indicated. There is a light concentration of water present in the oil. Elemental level of silicon (Si) above normal. The condition of the oil is acceptable for the time in service.

**Depot:** RIPTAM  
**Unique No:** 10900830  
**Signed:** Don Baldrige  
**Report Date:** 29 Feb 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

