



# CONSTRUCTION EQUIPMENT

## VOLVO L90H 623623 - HYDRAULIC SYSTEM



**Sample No:** VCP441820  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP441820</b>	VCP337386	VCP302070	VCP220130
Sample Date	<b>02 Feb 2024</b>	09 Aug 2021	25 Jan 2021	11 Feb 2019
Machine Hours	<b>13435</b>	9114	8072	4983
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	Changed	Not Chngd
Sample Status	<b>ABNORMAL</b>	ATTENTION	ATTENTION	ABNORMAL

**ALTA EQUIPMENT COMPANY**  
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### OIL CONDITION

Visc @ 40°C	cSt	<b>42.4</b>	44.1	42.7	43.00
Acid Number (AN)	mg KOH/g	<b>0.25</b>	0.306	0.160	0.348

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		---	11620	3174	6956
Particles >6µm		---	2413	939	2181
Particles >14µm		---	82	120	175
ISO 4406:1999 (c)		---	21/18/14	19/17/14	20/18/15
Silicon	ppm	<b>2</b>	<1	3	3
Sodium	ppm	<b>2</b>	1	2	<1
Potassium	ppm	<b>0</b>	0	5	<1

### Diagnosis

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### WEAR METALS

Iron	ppm	<b>&lt;1</b>	3	6	2
Copper	ppm	<b>3</b>	1	2	2
Lead	ppm	<b>2</b>	<1	2	1
Tin	ppm	<b>0</b>	<1	0	0
Aluminum	ppm	<b>&lt;1</b>	0	<1	0
Chromium	ppm	<b>2</b>	<1	<1	<1
Molybdenum	ppm	<b>1</b>	2	3	4
Nickel	ppm	<b>0</b>	0	<1	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	0	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>85</b>	94	119	104
Magnesium	ppm	<b>11</b>	9	14	12
Zinc	ppm	<b>418</b>	441	455	390
Phosphorus	ppm	<b>325</b>	333	380	317
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>0</b>	6	4	4

**Depot:** VOLVO0090  
**Unique No:** 10861829  
**Signed:** Jonathan Hester  
**Report Date:** 07 Feb 2024

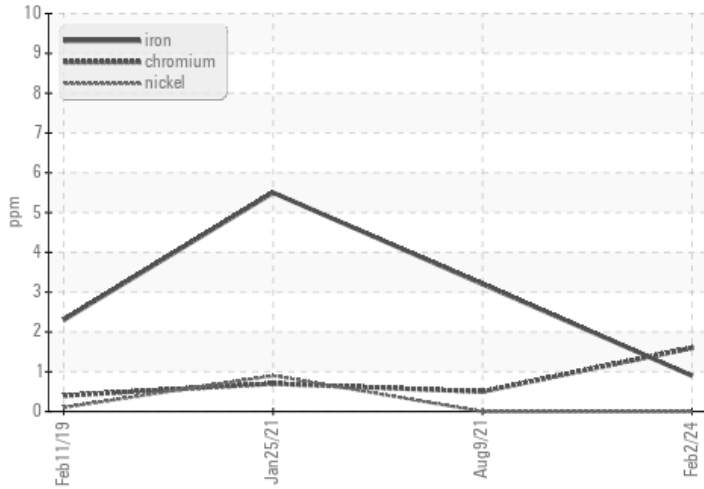


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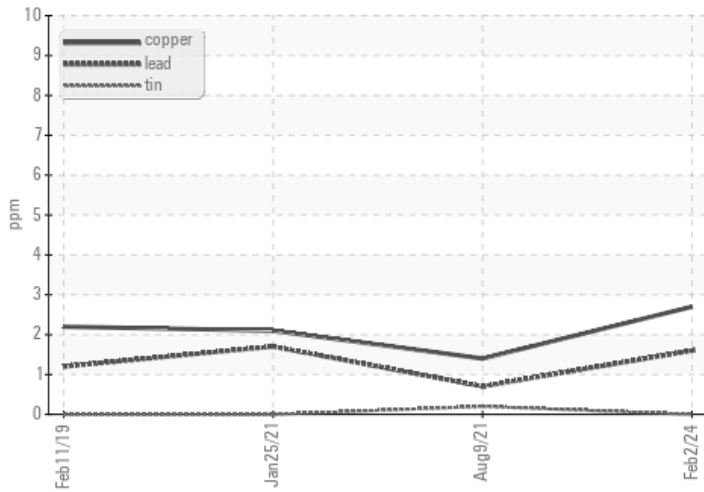


## GRAPHS

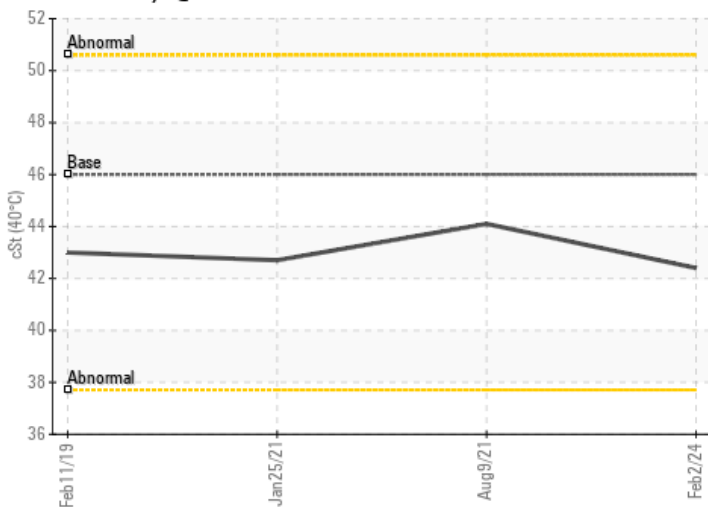
### Ferrous Alloys



### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number

