



# CONSTRUCTION EQUIPMENT

## 567921 VOLVO L110H 631322 - HYDRAULIC SYSTEM



**Sample No:** VCP398043  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** 567921



### SAMPLE INFORMATION

Sample Number	<b>VCP398043</b>	VCP366404	VCP326791	VCP301983
Sample Date	<b>01 Aug 2023</b>	30 Sep 2022	03 Sep 2021	05 Jan 2021
Machine Hours	<b>9947</b>	8782	0	5351
Oil Hours	<b>8000</b>	4000	1500	1300
Oil Changed	<b>N/A</b>	Changed	Not Changd	Not Changd
Sample Status	<b>ABNORMAL</b>	ATTENTION	ABNORMAL	ABNORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
TAMPA, FL  
US 33619  
Contact: ROBERT TURNER  
rturner@ripatampa.com  
T:  
F:



### OIL CONDITION

Visc @ 40°C	cSt	<b>52.5</b>	53.3	53.1	45.3
Acid Number (AN)	mg KOH/g	<b>0.47</b>	0.32	0.516	0.199



### CONTAMINATION

Particles >4µm		<b>11934</b>	17585	---	3472
Particles >6µm		<b>2752</b>	1392	---	778
Particles >14µm		<b>419</b>	82	---	62
ISO 4406:1999 (c)		<b>21/19/16</b>	21/18/14	---	19/17/13
Silicon	ppm	<b>4</b>	8	10	24
Sodium	ppm	<b>2</b>	<1	2	2
Potassium	ppm	<b>0</b>	0	3	0

### Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



### WEAR METALS

Iron	ppm	<b>6</b>	7	4	4
Copper	ppm	<b>2</b>	2	2	2
Lead	ppm	<b>0</b>	1	2	<1
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>2</b>	<1	<1	<1
Chromium	ppm	<b>1</b>	2	1	2
Molybdenum	ppm	<b>9</b>	3	3	2
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	0	0
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>181</b>	363	153	133
Magnesium	ppm	<b>16</b>	14	17	17
Zinc	ppm	<b>450</b>	511	420	459
Phosphorus	ppm	<b>382</b>	421	373	362
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>6</b>	0	10	5

**Depot:** RIPTAM  
**Unique No:** 10602063  
**Signed:** Wes Davis  
**Report Date:** 14 Aug 2023

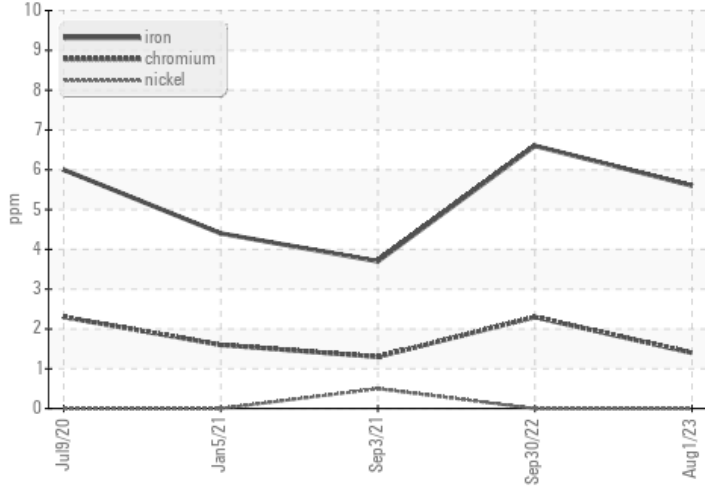


# CONSTRUCTION EQUIPMENT

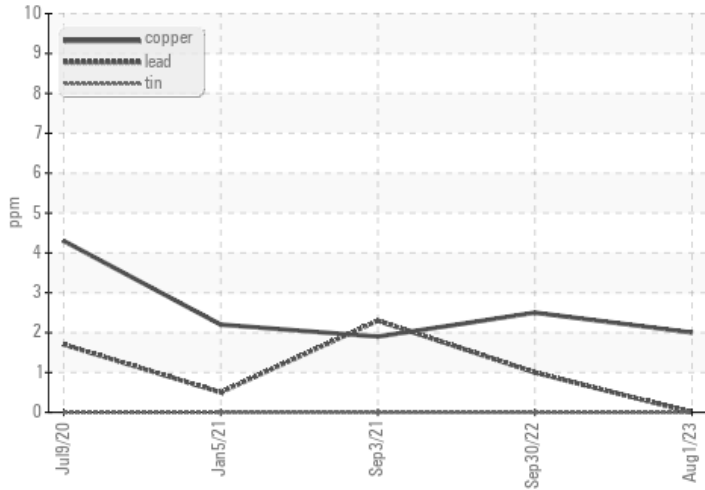


## GRAPHS

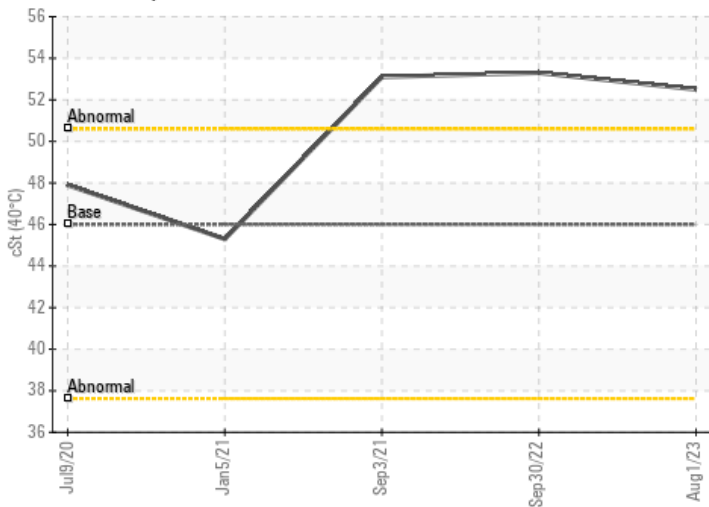
### Ferrous Alloys



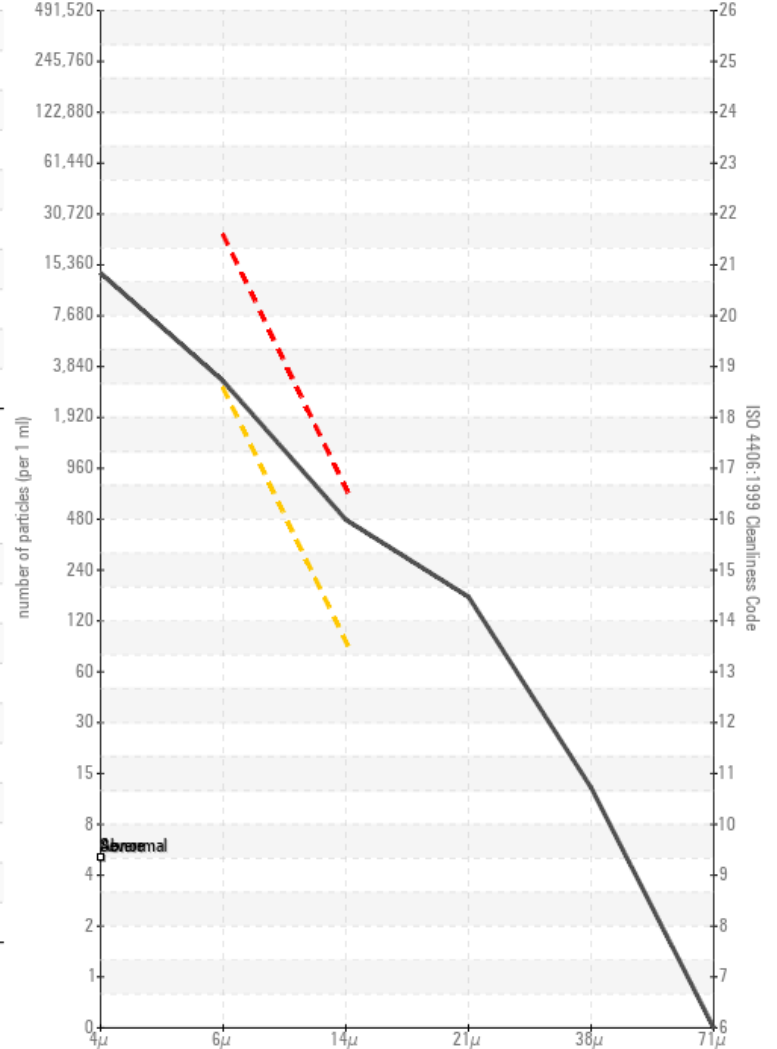
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

