



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 631978 - HYDRAULIC SYSTEM



**Sample No:** VCP446022  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP446022</b>	VCP414756	VCP381365	VCP375965
Sample Date	<b>19 Mar 2024</b>	31 Aug 2023	08 Dec 2022	09 Jun 2022
Machine Hours	<b>5374</b>	4344	3188	2197
Oil Hours	<b>0</b>	4344	500	1500
Oil Changed	<b>Not Changd</b>	Changed	Not Changd	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	ABNORMAL

**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>43.3</b>	42.4	42.6	43.4
Acid Number (AN)	mg KOH/g	<b>0.21</b>	0.37	0.33	0.36

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>2337</b>	898	44916	44245
Particles >6µm		<b>441</b>	61	15554	14824
Particles >14µm		<b>24</b>	5	1592	2480
ISO 4406:1999 (c)		<b>18/16/12</b>	17/13/10	23/21/18	23/21/18
Silicon	ppm	<b>3</b>	4	5	5
Sodium	ppm	<b>2</b>	1	2	0
Potassium	ppm	<b>2</b>	<1	0	<1

**Diagnosis**  
 Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### WEAR METALS

Iron	ppm	<b>4</b>	8	9	6
Copper	ppm	<b>2</b>	2	4	2
Lead	ppm	<b>1</b>	2	2	3
Tin	ppm	<b>&lt;1</b>	0	0	<1
Aluminum	ppm	<b>&lt;1</b>	0	0	<1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>&lt;1</b>	<1	<1	<1
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	0	0	0
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>72</b>	63	65	66
Magnesium	ppm	<b>5</b>	4	3	5
Zinc	ppm	<b>437</b>	432	391	434
Phosphorus	ppm	<b>332</b>	341	317	327
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>0</b>	0	0	<1

**Depot:** RIPTAM  
**Unique No:** 11044331  
**Signed:** Wes Davis  
**Report Date:** 23 May 2024

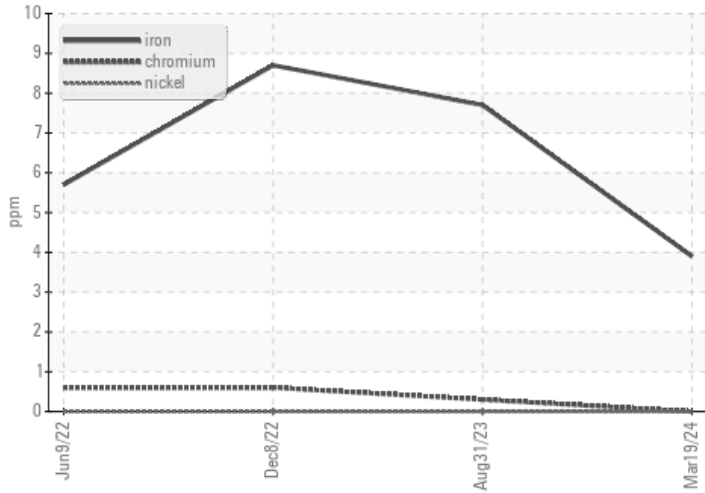


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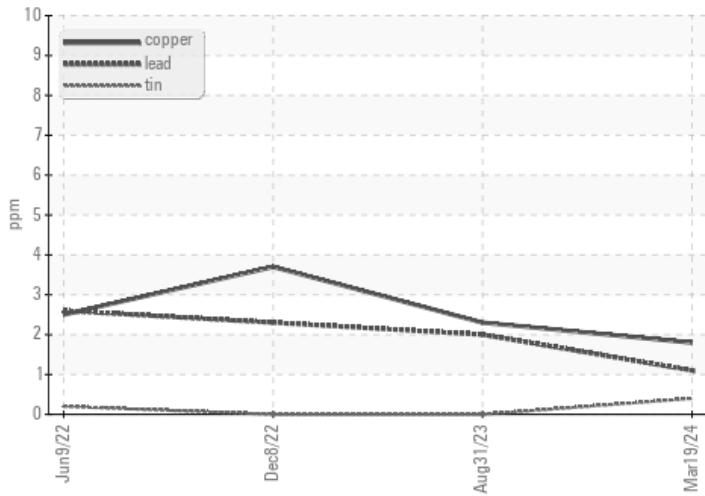


## GRAPHS

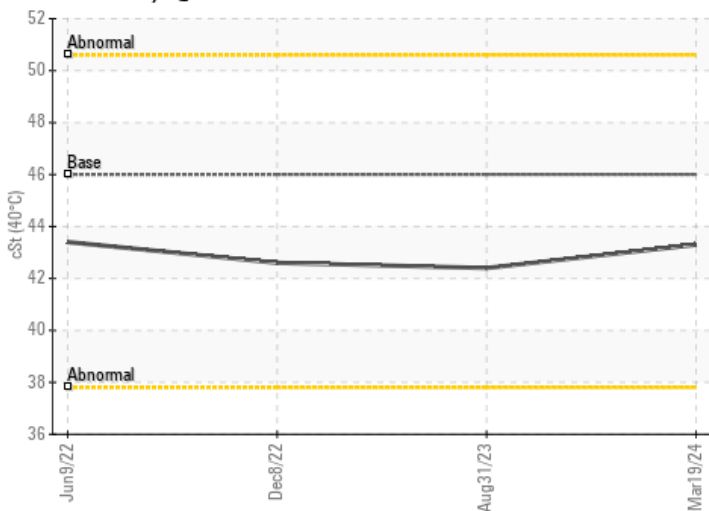
### Ferrous Alloys



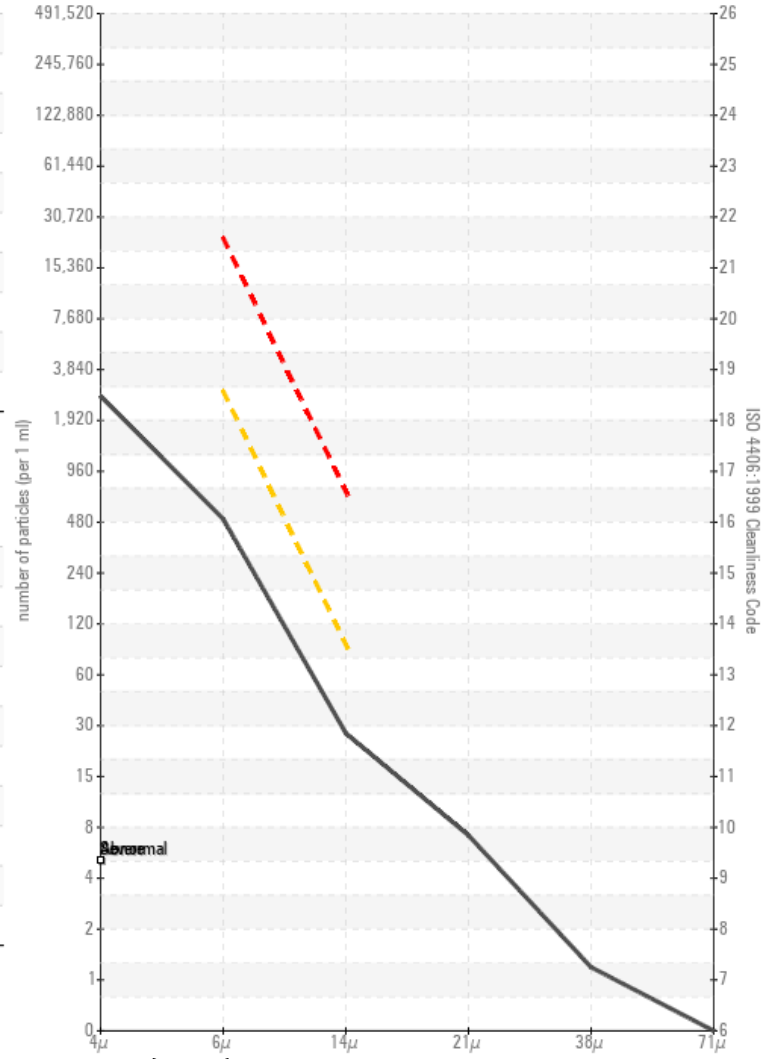
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

