



# CONSTRUCTION EQUIPMENT

## SW1013401 TERRA FIRM VOLVO L110H 631395 - HYDRAULIC SYSTEM



**Sample No:** VCP396567  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SW1013401 TERRA FIRM



### SAMPLE INFORMATION

Sample Number	<b>VCP396567</b>	VCP346010	VCP313523	VCP291930
Sample Date	<b>16 Mar 2023</b>	13 Oct 2022	02 Mar 2022	12 Jan 2021
Machine Hours	<b>7586</b>	6672	5220	3496
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	N/A	N/A
Sample Status	<b>ABNORMAL</b>	ATTENTION	ATTENTION	ATTENTION

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### OIL CONDITION

Visc @ 40°C	cSt	<b>44.4</b>	42.1	44.3	41.5
Acid Number (AN)	mg KOH/g	<b>0.40</b>	0.40	0.39	0.311



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>3145</b>	12215	18591	9953
Particles >6µm		<b>668</b>	1701	3155	2018
Particles >14µm		<b>24</b>	104	119	151
ISO 4406:1999 (c)		<b>19/17/12</b>	21/18/14	21/19/14	20/18/14
Silicon	ppm	<b>50</b>	4	5	4
Sodium	ppm	<b>0</b>	1	<1	<1
Potassium	ppm	<b>2</b>	0	2	<1

### Diagnosis

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The amount and size of particulates present in the system are 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>	10	10	8
Copper	ppm	<b>3</b>	7	6	5
Lead	ppm	<b>&lt;1</b>	2	2	1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>1</b>	2	2	0
Chromium	ppm	<b>&lt;1</b>	2	1	1
Molybdenum	ppm	<b>9</b>	1	2	1
Nickel	ppm	<b>&lt;1</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>311</b>	195	201	102
Magnesium	ppm	<b>55</b>	21	23	4
Zinc	ppm	<b>423</b>	460	505	436
Phosphorus	ppm	<b>342</b>	356	385	339
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>13</b>	0	1	3

**Depot:** VOLVO5856  
**Unique No:** 10389290  
**Signed:** Don Baldrige  
**Report Date:** 27 Mar 2023

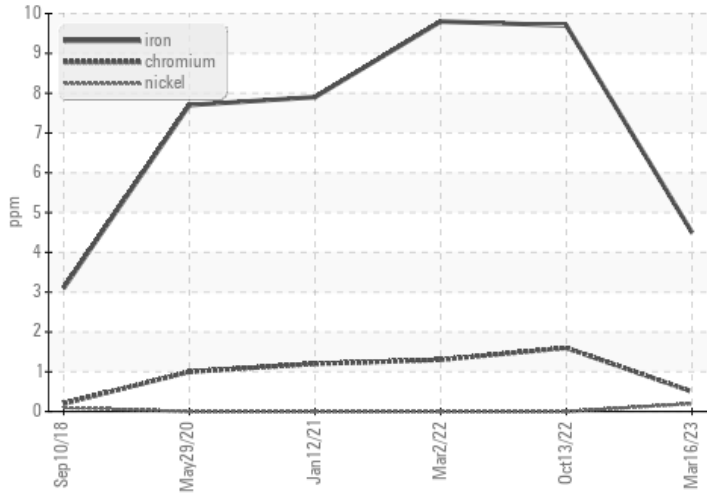


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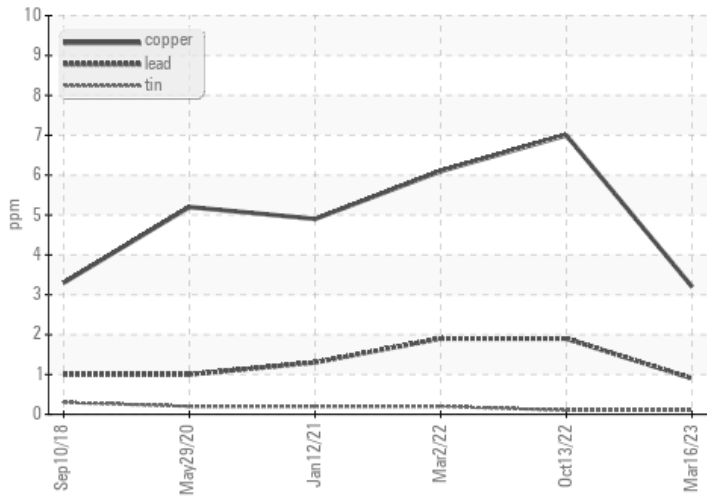


## VOLVO GRAPHS

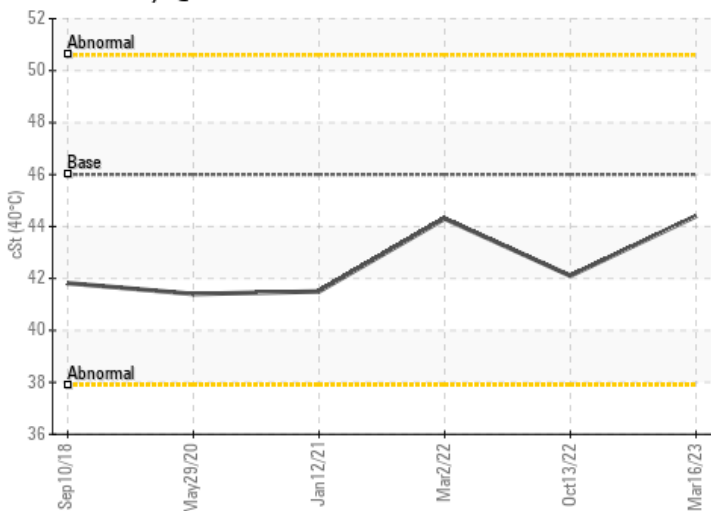
### Ferrous Alloys



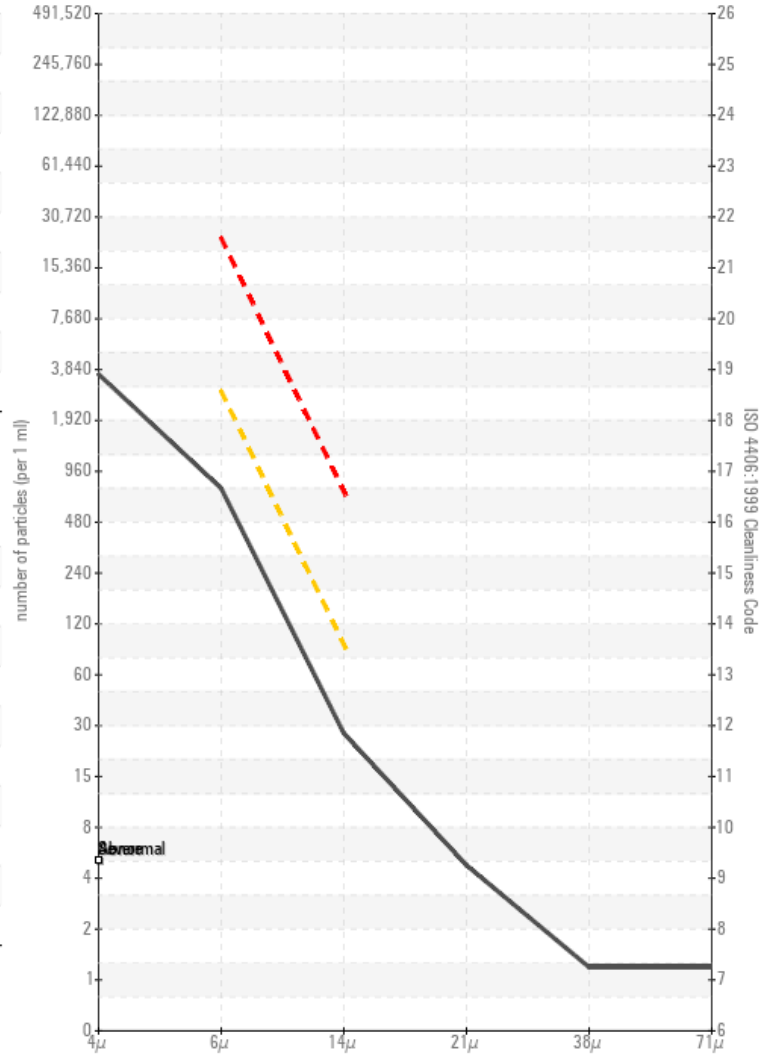
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

