



# CONSTRUCTION EQUIPMENT

## SWA303245-20 VOLVO L110H 631591 - HYDRAULIC SYSTEM



**Sample No:** VCP407104  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SWA303245-20



### SAMPLE INFORMATION

Sample Number	<b>VCP407104</b>	VCP409642	VCP374151	VCP336155
Sample Date	<b>28 Jul 2023</b>	27 Feb 2023	06 Jun 2022	21 Feb 2022
Machine Hours	<b>7541</b>	6936	5936	5432
Oil Hours	<b>0</b>	0	0	1500
Oil Changed	<b>Not Chngd</b>	Not Chngd	Not Chngd	Not Chngd
Sample Status	<b>SEVERE</b>	ABNORMAL	NORMAL	ATTENTION

### DENALI WE CARE

400 TORNE RD  
HILLBURN, NY  
US 10931  
Contact: Service Manager



### OIL CONDITION

Visc @ 40°C	cSt	<b>41.3</b>	41.5	41.5	41.6
Acid Number (AN)	mg KOH/g	<b>0.30</b>	0.33	0.35	0.33

T:  
F:



### CONTAMINATION

Particles >4µm		<b>31168</b>	12603	6481	9440
Particles >6µm		<b>11677</b>	3357	918	1515
Particles >14µm		<b>1445</b>	204	62	89
ISO 4406:1999 (c)		<b>22/21/18</b>	21/19/15	20/17/13	20/18/14
Silicon	ppm	<b>3</b>	2	2	2
Sodium	ppm	<b>1</b>	2	1	2
Potassium	ppm	<b>0</b>	<1	0	0

### Diagnosis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high 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>12</b>	12	11	11
Copper	ppm	<b>2</b>	2	2	2
Lead	ppm	<b>&lt;1</b>	<1	1	1
Tin	ppm	<b>0</b>	0	<1	<1
Aluminum	ppm	<b>&lt;1</b>	<1	<1	<1
Chromium	ppm	<b>4</b>	3	3	3
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	<1	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>190</b>	172	158	178
Magnesium	ppm	<b>6</b>	7	6	8
Zinc	ppm	<b>408</b>	405	396	423
Phosphorus	ppm	<b>338</b>	326	334	372
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>3</b>	2	5	6

**Depot:** DENHIL  
**Unique No:** 10617366  
**Signed:** Wes Davis  
**Report Date:** 24 Aug 2023

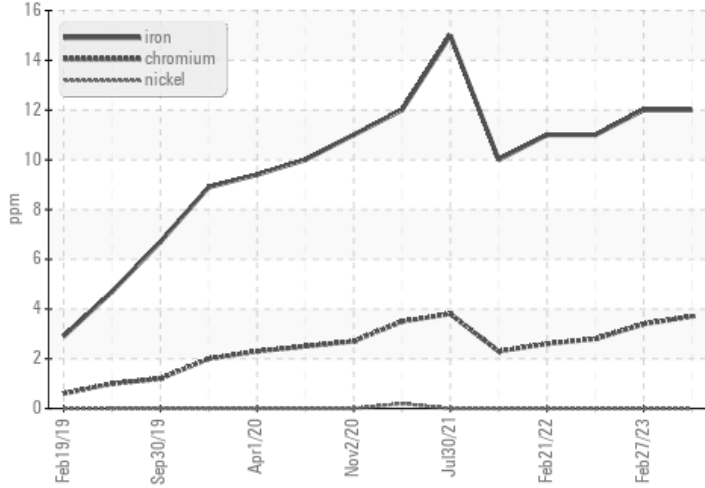


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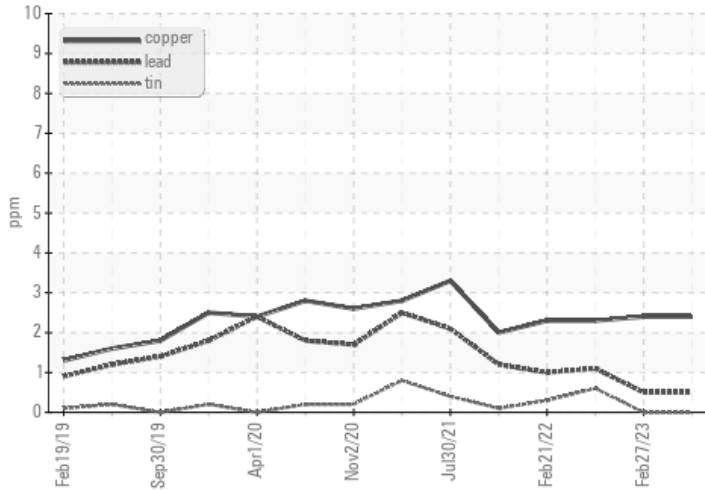


## VOLVO GRAPHS

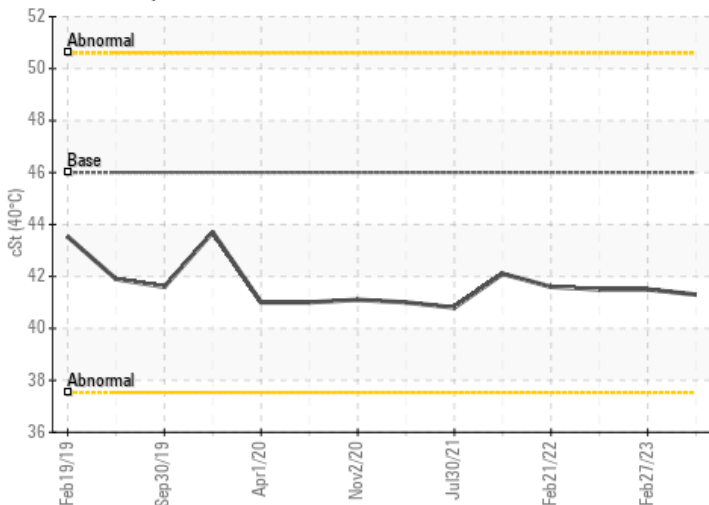
### Ferrous Alloys



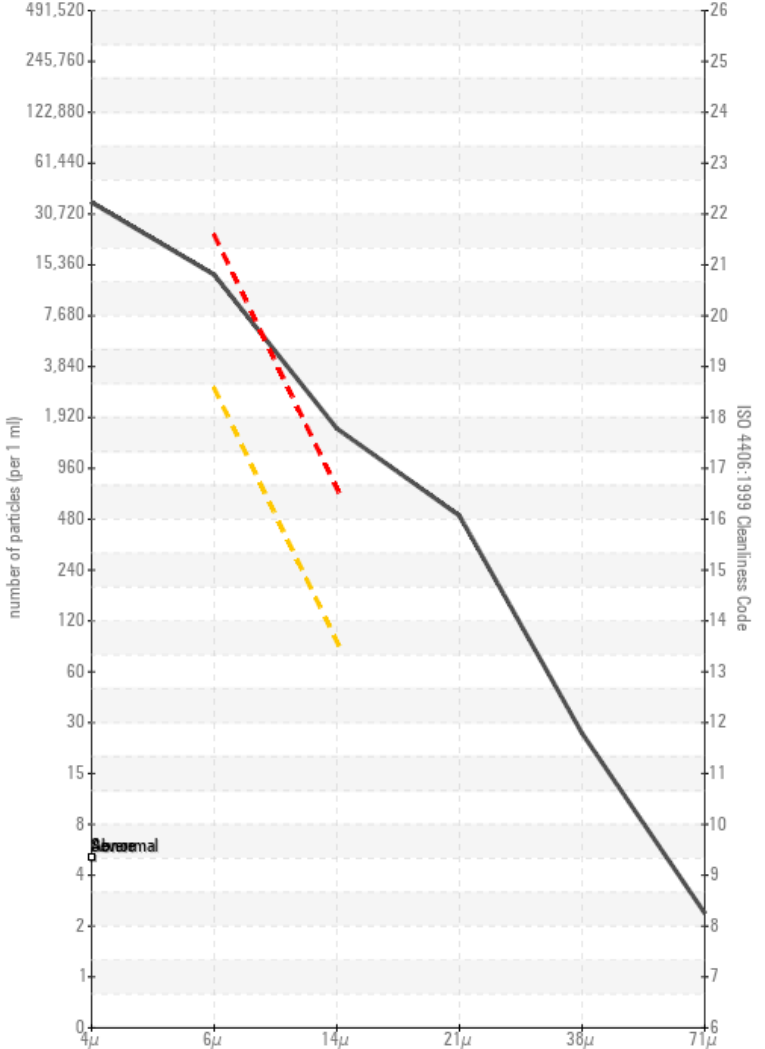
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

