



# CONSTRUCTION EQUIPMENT

## YALE FORKLIFT 4 - HYDRAULIC SYSTEM



**Sample No:** VCP408920

**Oil Type:** FACTORY

**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP408920</b>	VCP416329	VCP399941	VCP340105
Sample Date	<b>26 Oct 2023</b>	08 Aug 2023	13 Apr 2023	02 Jan 2023
Machine Hours	<b>3009</b>	2739	2504	2231
Oil Hours	<b>3009</b>	739	502	2231
Oil Changed	<b>Not Changd</b>	Not Changd	Not Changd	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

### MARYLAND ENVIRONMENTAL SERVICES

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DICKERSON, MD  
US 20842

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### OIL CONDITION

Visc @ 40°C	cSt	<b>46.2</b>	46.1	45.8	45.9
Acid Number (AN)	mg KOH/g	<b>0.44</b>	0.43	0.42	0.43



### CONTAMINATION

Particles >4µm		<b>552</b>	451	631	954
Particles >6µm		<b>135</b>	152	305	271
Particles >14µm		<b>17</b>	21	48	27
ISO 4406:1999 (c)		<b>16/14/11</b>	16/14/12	16/15/13	17/15/12
Silicon	ppm	<b>2</b>	2	1	1
Sodium	ppm	<b>1</b>	1	0	<1
Potassium	ppm	<b>1</b>	0	2	0

### 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>	5	5	4
Copper	ppm	<b>2</b>	2	2	2
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>&lt;1</b>	2	0	<1
Chromium	ppm	<b>0</b>	0	<1	0
Molybdenum	ppm	<b>&lt;1</b>	<1	<1	<1
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>416</b>	437	180	194
Magnesium	ppm	<b>0</b>	4	3	<1
Zinc	ppm	<b>468</b>	459	392	391
Phosphorus	ppm	<b>359</b>	379	300	318
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>13</b>	13	4	4

**Depot:** MARDIC  
**Unique No:** 10723378  
**Signed:** Wes Davis  
**Report Date:** 01 Nov 2023

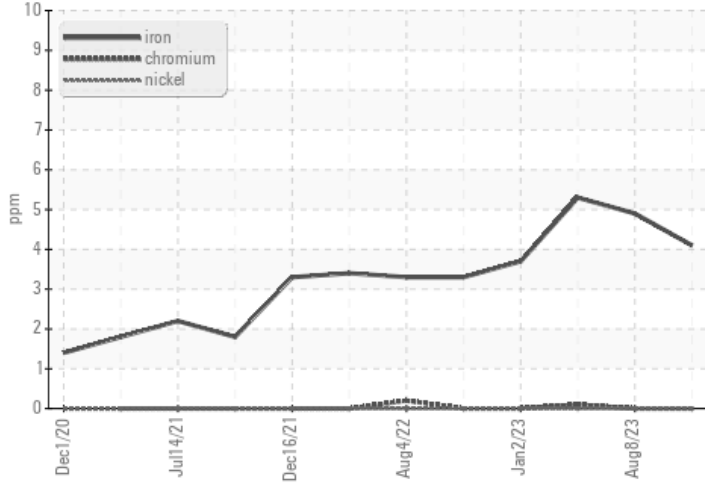


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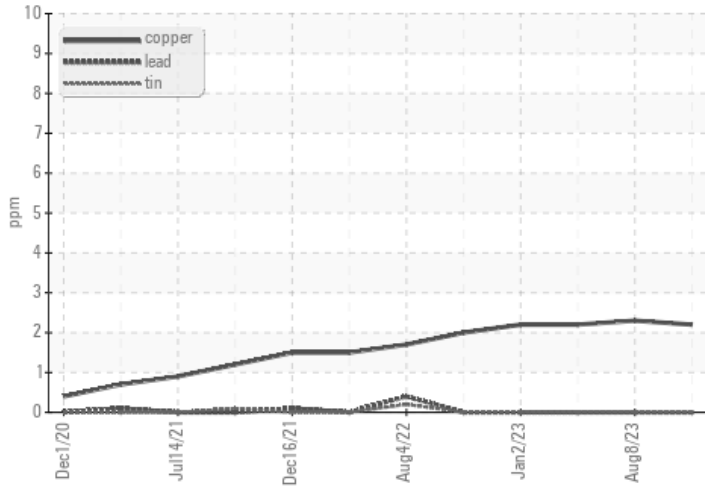


## VOLVO GRAPHS

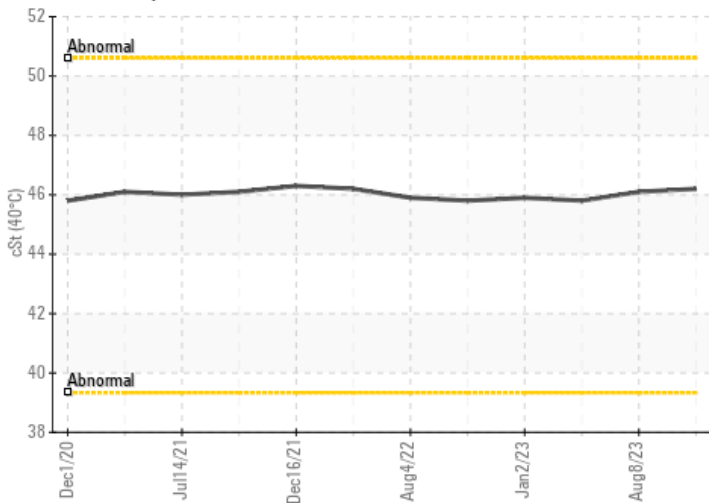
Ferrous Alloys



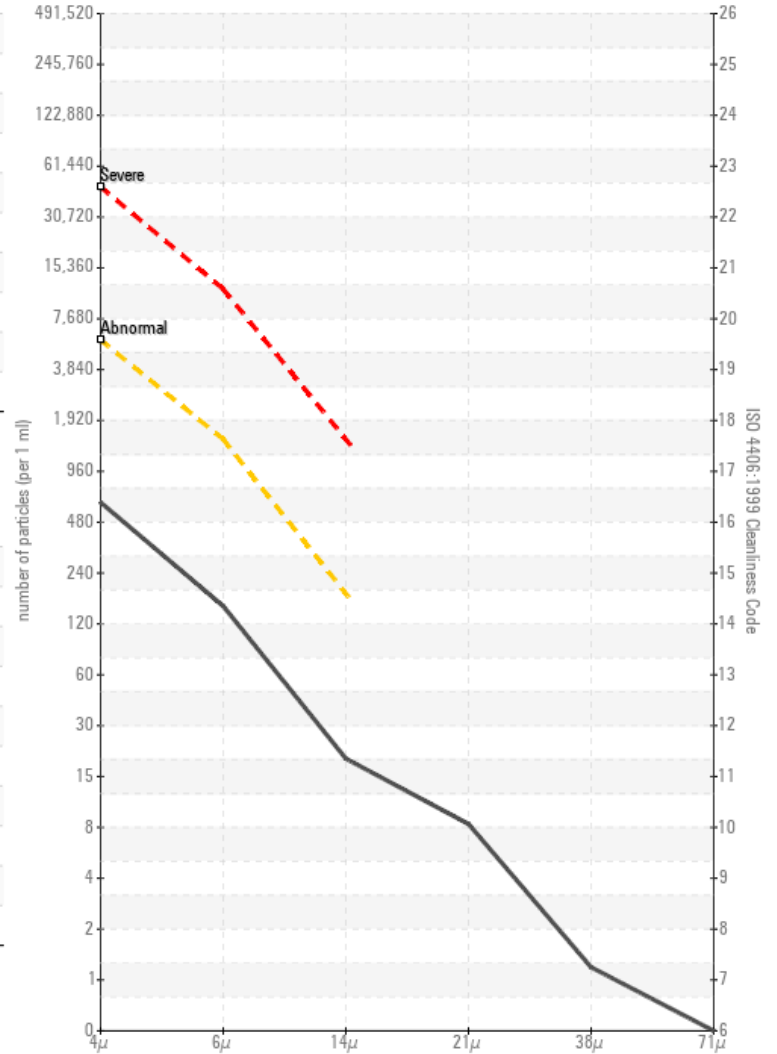
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

