



# CONSTRUCTION EQUIPMENT

## SWA150612-10 VOLVO EC220EL 310769 - HYDRAULIC SYSTEM



**Sample No:** VCP278990  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SWA150612-10



### SAMPLE INFORMATION

Sample Number	<b>VCP278990</b>	VCP321794	VCP289254	VCP241233
Sample Date	<b>12 Jan 2023</b>	26 Aug 2021	17 Sep 2020	28 Feb 2019
Machine Hours	<b>6114</b>	4369	3051	1013
Oil Hours	<b>1075</b>	1000	3000	1013
Oil Changed	<b>Changed</b>	Changed	Not Changd	Not Changd
Sample Status	<b>ABNORMAL</b>	ABNORMAL	NORMAL	NORMAL

**ULSTER COUNTY RESOURCE RECOVERY AGENCY**  
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 T: (845)399-2686  
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### OIL CONDITION

Visc @ 40°C	cSt	<b>37.9</b>	40.5	40.3	43.41
Acid Number (AN)	mg KOH/g	<b>0.43</b>	0.568	0.719	0.475



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>22512</b>	62796	34527	21576
Particles >6µm		<b>1187</b>	463	1175	4637
Particles >14µm		<b>75</b>	101	25	423
ISO 4406:1999 (c)		<b>22/17/13</b>	23/16/14	22/17/12	22/19/16
Silicon	ppm	<b>7</b>	5	5	4
Sodium	ppm	<b>5</b>	3	3	1
Potassium	ppm	<b>0</b>	<1	1	<1

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The chromium level is abnormal. All other component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WEAR METALS

Iron	ppm	<b>7</b>	6	4	2
Copper	ppm	<b>20</b>	21	16	13
Lead	ppm	<b>0</b>	<1	<1	<1
Tin	ppm	<b>0</b>	<1	0	0
Aluminum	ppm	<b>&lt;1</b>	0	<1	<1
Chromium	ppm	<b>15</b>	18	8	1
Molybdenum	ppm	<b>7</b>	2	2	0
Nickel	ppm	<b>0</b>	<1	0	0
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	<1	0	0
Manganese	ppm	<b>&lt;1</b>	<1	0	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>670</b>	533	521	88
Magnesium	ppm	<b>47</b>	20	19	<1
Zinc	ppm	<b>495</b>	555	561	482
Phosphorus	ppm	<b>416</b>	437	418	393
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>17</b>	19	16	<1

**Depot:** ULSKIN  
**Unique No:** 10331580  
**Signed:** Don Baldrige  
**Report Date:** 09 Feb 2023

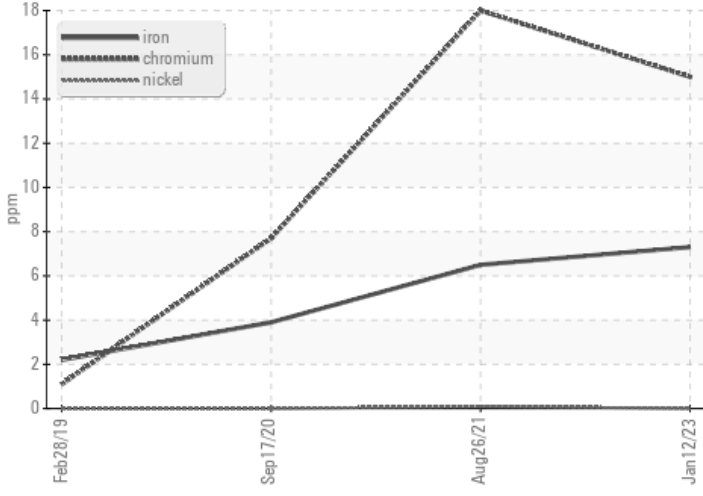


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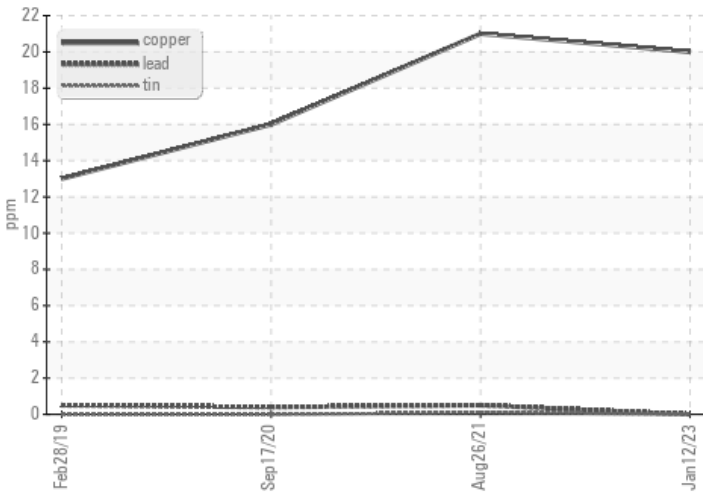


## GRAPHS

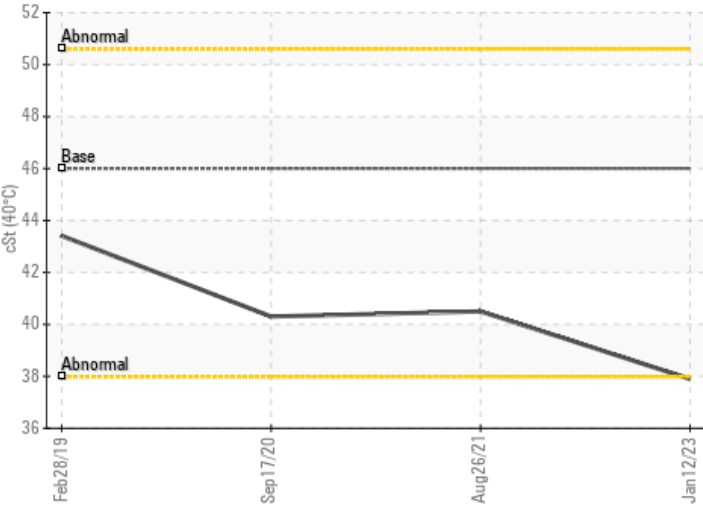
### ▲ Ferrous Alloys



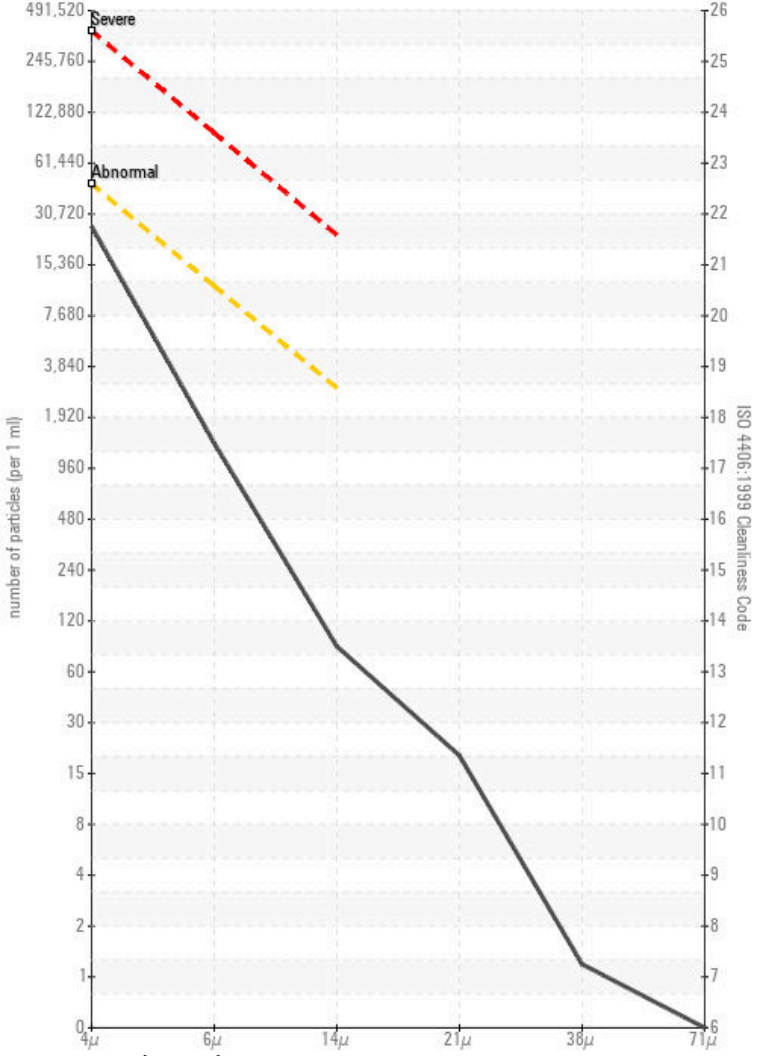
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

