



# CONSTRUCTION EQUIPMENT

## SPM608314 VOLVO EC380EL 311492 - HYDRAULIC SYSTEM



**Sample No:** VCP426422  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SPM608314



### SAMPLE INFORMATION

Sample Number	<b>VCP426422</b>	VCP414189	VCP403425	VCP387437
Sample Date	<b>15 Sep 2023</b>	21 Jul 2023	22 Feb 2023	05 Dec 2022
Machine Hours	<b>7993</b>	7780	6944	6455
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Not Changd	Changed	Not Changd
Sample Status	<b>ABNORMAL</b>	ABNORMAL	NORMAL	ATTENTION

**BELSON STEEL**  
 1685 N STATE RTE 50  
 BOURBONNAIS, IL  
 US 60914  
 Contact: M. POZAN  
 mpozan@belsonsteel.com  
 T: (815)932-7416  
 F:

### OIL CONDITION

Visc @ 40°C	cSt	<b>41.8</b>	42.0	38.4	41.4
Acid Number (AN)	mg KOH/g	<b>0.48</b>	0.50	0.62	0.54

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		---	---	4642	63383
Particles >6µm		---	---	948	12483
Particles >14µm		---	---	32	550
ISO 4406:1999 (c)		---	---	19/17/12	23/21/16
Silicon	ppm	<b>&lt;1</b>	<1	1	2
Sodium	ppm	<b>1</b>	<1	0	2
Potassium	ppm	<b>0</b>	0	1	0

### 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. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present 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>5</b>	3	7	7
Copper	ppm	<b>12</b>	6	18	21
Lead	ppm	<b>0</b>	0	<1	0
Tin	ppm	<b>&lt;1</b>	0	<1	<1
Aluminum	ppm	<b>0</b>	<1	<1	<1
Chromium	ppm	<b>2</b>	2	3	3
Molybdenum	ppm	<b>&lt;1</b>	1	2	3
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</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>	0	0	0

### ADDITIVES

Calcium	ppm	<b>92</b>	95	182	223
Magnesium	ppm	<b>5</b>	9	15	19
Zinc	ppm	<b>420</b>	478	486	498
Phosphorus	ppm	<b>337</b>	366	381	407
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>0</b>	0	2	1

**Depot:** BELBOU  
**Unique No:** 10882923  
**Signed:** Don Baldridge  
**Report Date:** 16 Feb 2024

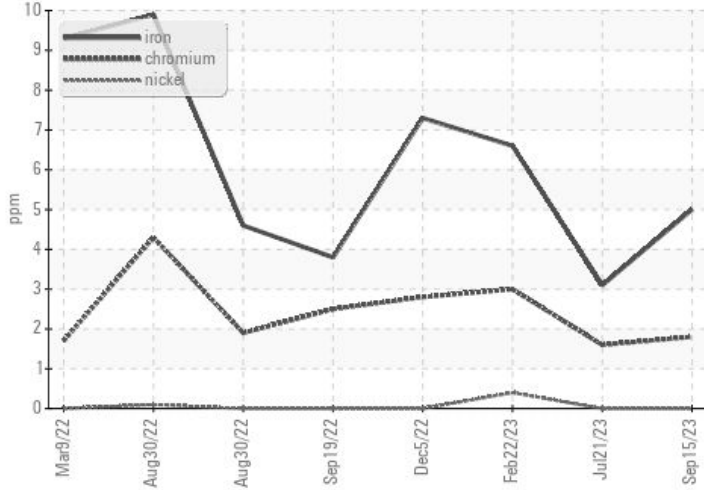


# CONSTRUCTION EQUIPMENT

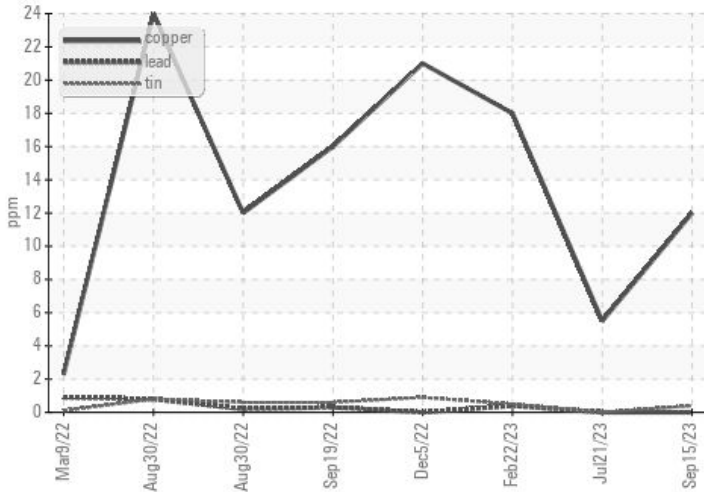


## GRAPHS

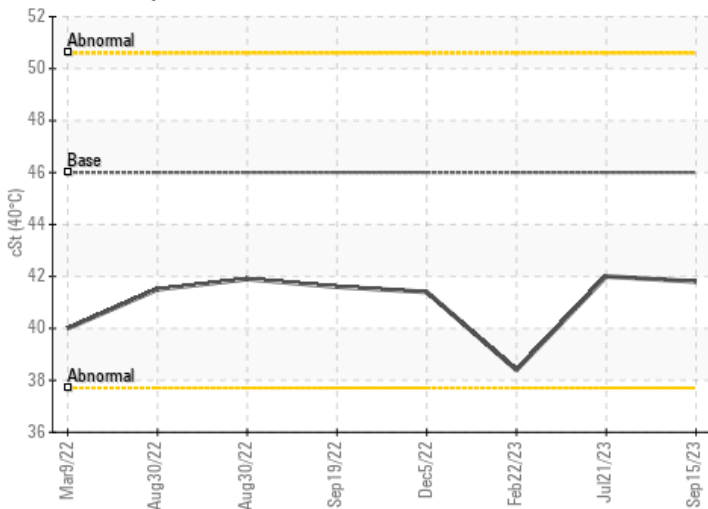
### Ferrous Alloys



### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number

