



CONSTRUCTION EQUIPMENT

3040 VOLVO EC220EL 314928 - HYDRAULIC SYSTEM



Sample No: VCP401519
Oil Type: CASTROL HD AW ISO 46
Job No: 3040



SAMPLE INFORMATION

Sample Number	VCP401519	VCP403834	---	---
Sample Date	28 Nov 2023	25 Apr 2023	---	---
Machine Hours	1040	511	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	Not Chngd	---	---
Sample Status	NORMAL	NORMAL	---	---

LEONARDS CONTRACTING

30850 STEPHENSON HWY
MADISON HEIGHTS, MI
US 48071

Contact: LARRY SCHRADER
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F: x:



OIL CONDITION

Visc @ 40°C	cSt	42.8	43.4	---	---
Acid Number (AN)	mg KOH/g	0.43	0.36	---	---



CONTAMINATION

Water	%	NEG	NEG	---	---
Particles >4µm		4310	4273	---	---
Particles >6µm		479	320	---	---
Particles >14µm		27	30	---	---
ISO 4406:1999 (c)		19/16/12	19/15/12	---	---
Silicon	ppm	4	3	---	---
Sodium	ppm	<1	<1	---	---
Potassium	ppm	2	<1	---	---

Diagnosis

Resample at the next service interval to monitor. All 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	1	2	---	---
Copper	ppm	21	16	---	---
Lead	ppm	0	0	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	<1	<1	---	---
Chromium	ppm	0	0	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	61	67	---	---
Magnesium	ppm	2	4	---	---
Zinc	ppm	482	442	---	---
Phosphorus	ppm	367	361	---	---
Barium	ppm	0	0	---	---
Boron	ppm	0	0	---	---

Depot: LEOMAD
Unique No: 10791975
Signed: Jonathan Hester
Report Date: 20 Dec 2023

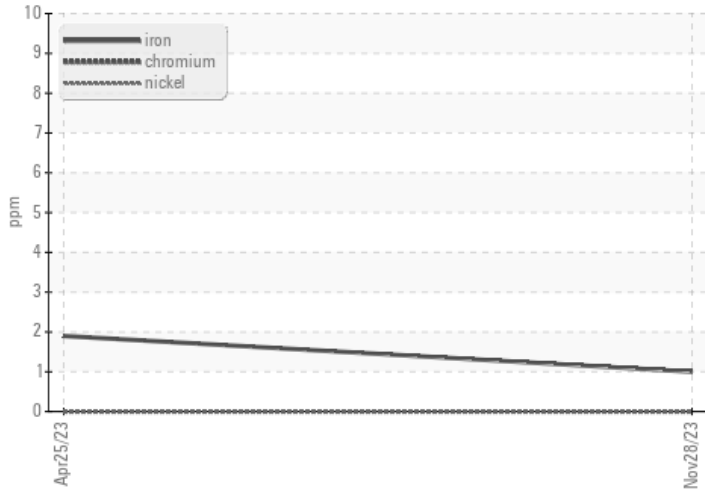


CONSTRUCTION EQUIPMENT

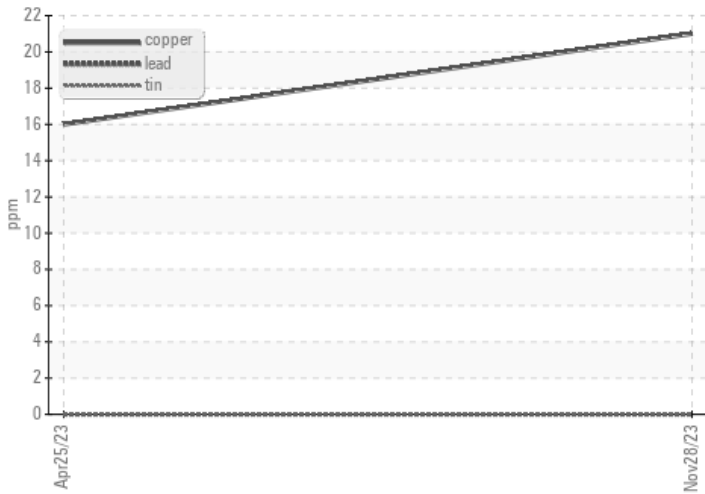


GRAPHS

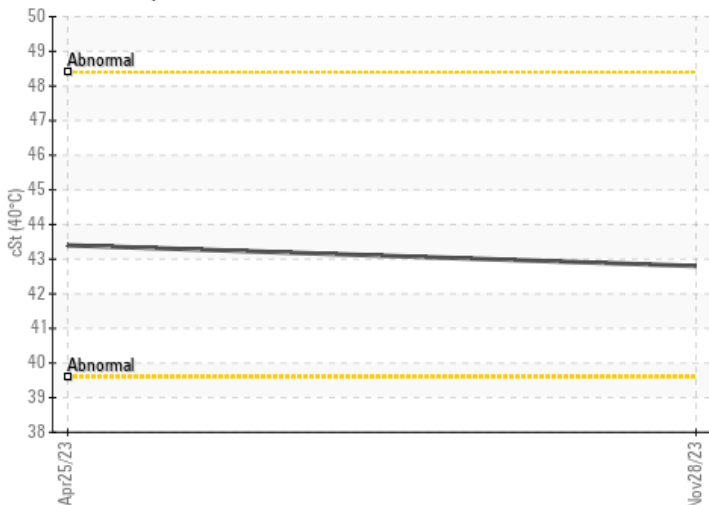
Ferrous Alloys



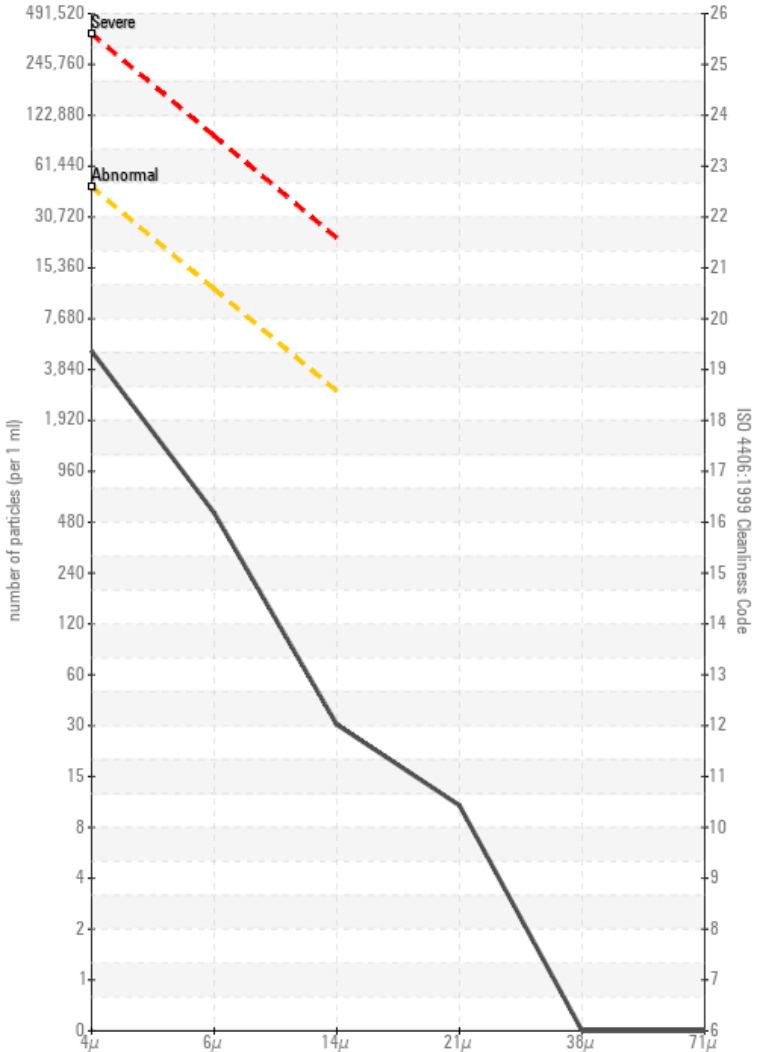
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

