



CONSTRUCTION EQUIPMENT

SPM646900 HOLCIM VOLVO L220H 3536 - HYDRAULIC SYSTEM



Sample No: VCP435718
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: SPM646900 HOLCIM



SAMPLE INFORMATION

Sample Number	VCP435718	VCP415061	---	---
Sample Date	20 Dec 2023	19 Oct 2023	---	---
Machine Hours	1630	542	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	Not Chngd	---	---
Sample Status	SEVERE	SEVERE	---	---

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 5000 INDUSTRIAL HWY
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 T: (312)350-2560
 F:



OIL CONDITION

Visc @ 40°C	cSt	▲ 65.5	▲ 64.8	---	---
Acid Number (AN)	mg KOH/g	■ 1.26	■ 1.11	---	---



CONTAMINATION

Water	%	■ 0.062	NEG	---	---
Particles >4µm		■ 4824	5789	---	---
Particles >6µm		■ 828	■ 1385	---	---
Particles >14µm		■ 41	■ 79	---	---
ISO 4406:1999 (c)		19/17/13	20/18/13	---	---
Silicon	ppm	■ 3	■ 2	---	---
Sodium	ppm	■ 2	■ 4	---	---
Potassium	ppm	■ 0	■ 2	---	---

Diagnosis

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The tin level is severe. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	■ 2	■ <1	---	---
Copper	ppm	■ 4	■ 3	---	---
Lead	ppm	■ <1	■ 2	---	---
Tin	ppm	◆ 274	◆ 280	---	---
Aluminum	ppm	■ 0	■ <1	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 0	■ 0	---	---
Nickel	ppm	■ 0	■ <1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	■ <1	■ <1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	■ 1	■ 3	---	---
Magnesium	ppm	■ 0	■ 16	---	---
Zinc	ppm	■ 36	■ 66	---	---
Phosphorus	ppm	■ 174	■ 194	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 0	■ 0	---	---

Depot: VOLVO8885
Unique No: 10882940
Signed: Don Baldrige
Report Date: 16 Feb 2024

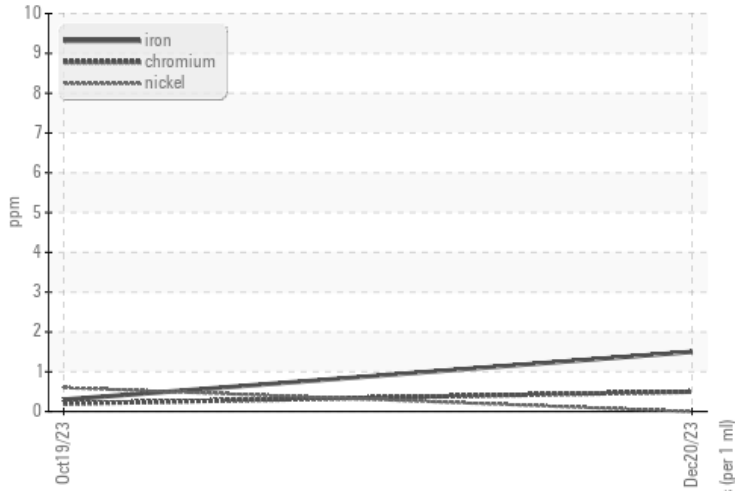


CONSTRUCTION EQUIPMENT

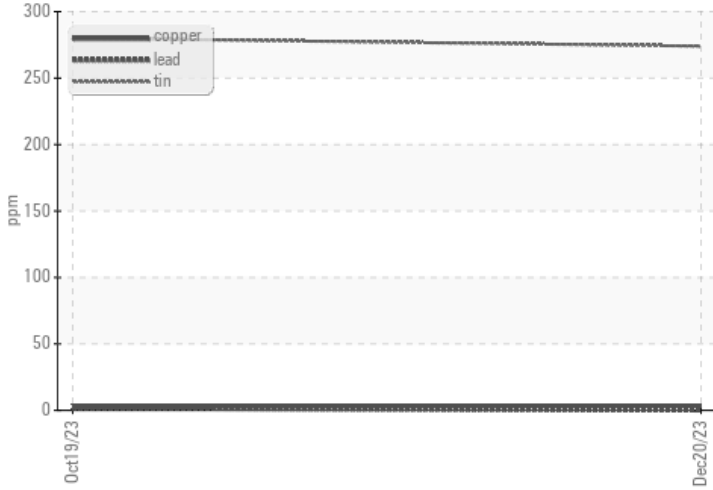


GRAPHS

Ferrous Alloys



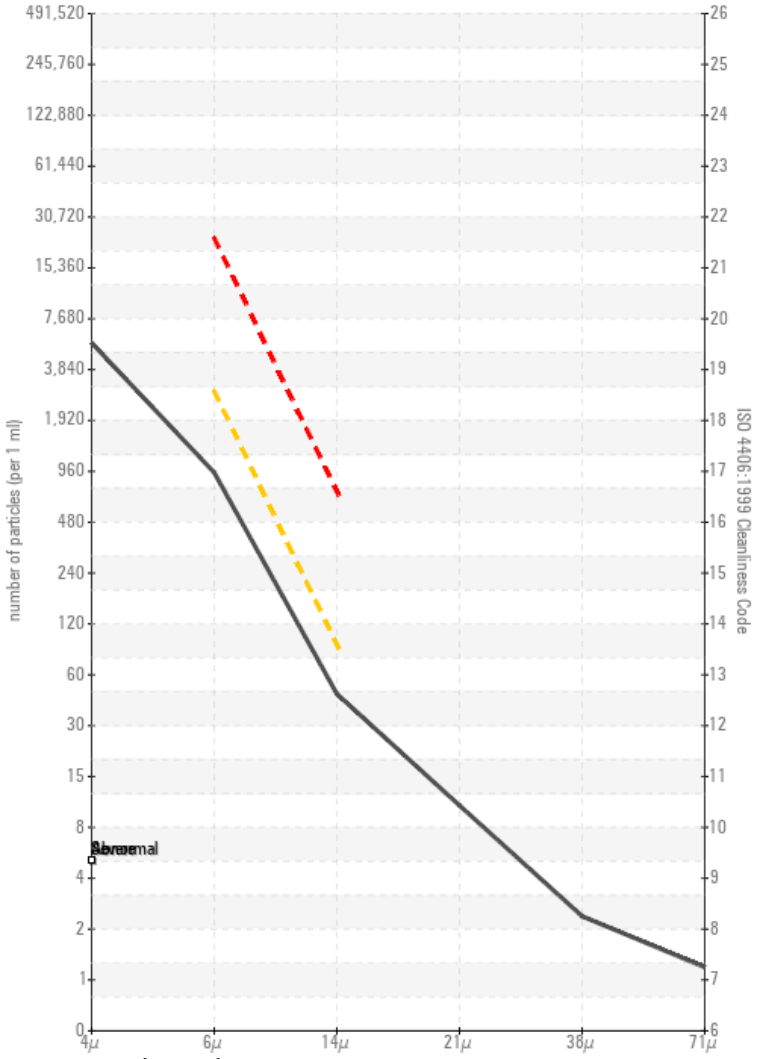
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

