



CONSTRUCTION EQUIPMENT

0330 WM VOLVO L90H 624438 - HYDRAULIC SYSTEM



Sample No: VCP437649
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 0330 WM



SAMPLE INFORMATION

Sample Number	VCP437649	VCP431533	VCP432308	VCP432733
Sample Date	26 Jan 2024	15 Dec 2023	27 Oct 2023	01 Sep 2023
Machine Hours	13382	12918	12363	11842
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Changed
Sample Status	SEVERE	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	45.0	43.3	43.4	42.3
Acid Number (AN)	mg KOH/g	0.929	0.39	0.39	0.43



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		67862	2564	732	399
Particles >6µm		18515	446	207	87
Particles >14µm		1010	29	24	8
ISO 4406:1999 (c)		23/21/17	19/16/12	17/15/12	16/14/10
Silicon	ppm	2	2	2	6
Sodium	ppm	<1	<1	0	11
Potassium	ppm	0	<1	2	<1

Diagnosis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



WEAR METALS

Iron	ppm	0	4	3	7
Copper	ppm	1	2	2	6
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	0	0	0
Aluminum	ppm	0	2	<1	1
Chromium	ppm	0	0	<1	1
Molybdenum	ppm	<1	<1	2	4
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	0	0
Vanadium	ppm	0	0	0	<1



ADDITIVES

Calcium	ppm	145	173	212	154
Magnesium	ppm	6	8	10	8
Zinc	ppm	464	470	484	471
Phosphorus	ppm	363	397	364	368
Barium	ppm	0	6	0	0
Boron	ppm	2	2	4	<1

Depot: VOLVO0096
Unique No: 10858902
Signed: Wes Davis
Report Date: 02 Feb 2024

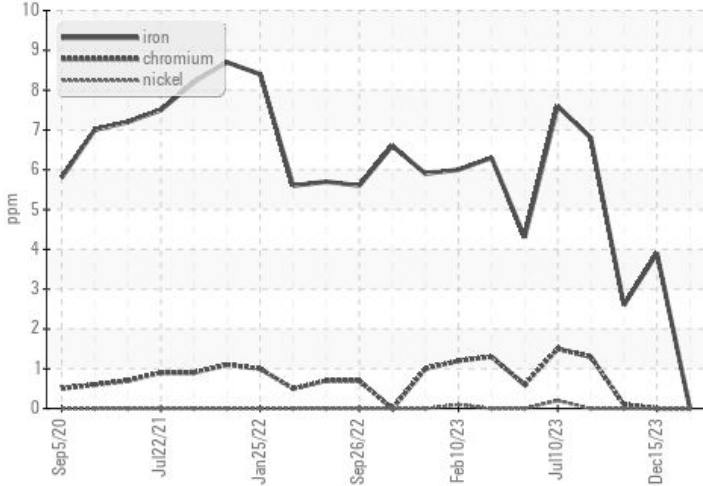


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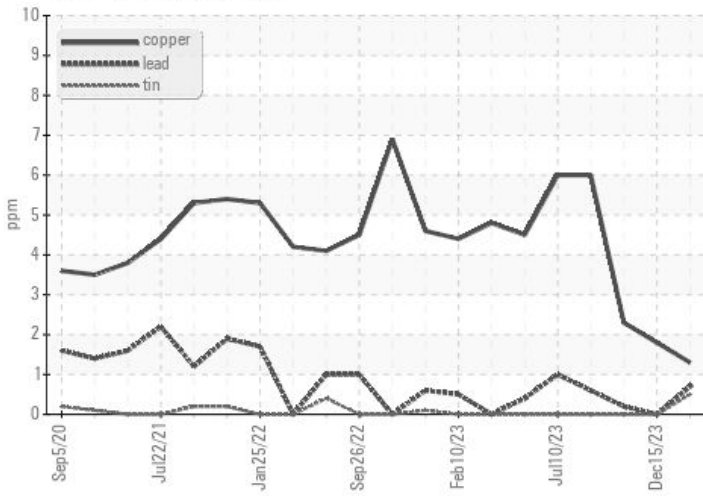


GRAPHS

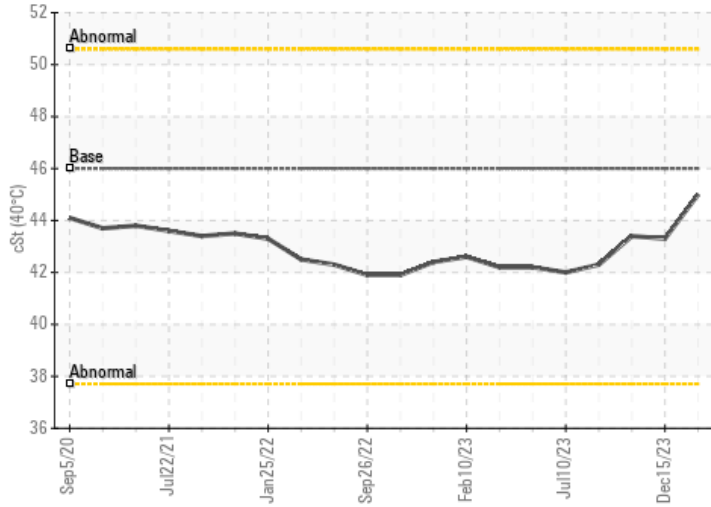
Ferrous Alloys



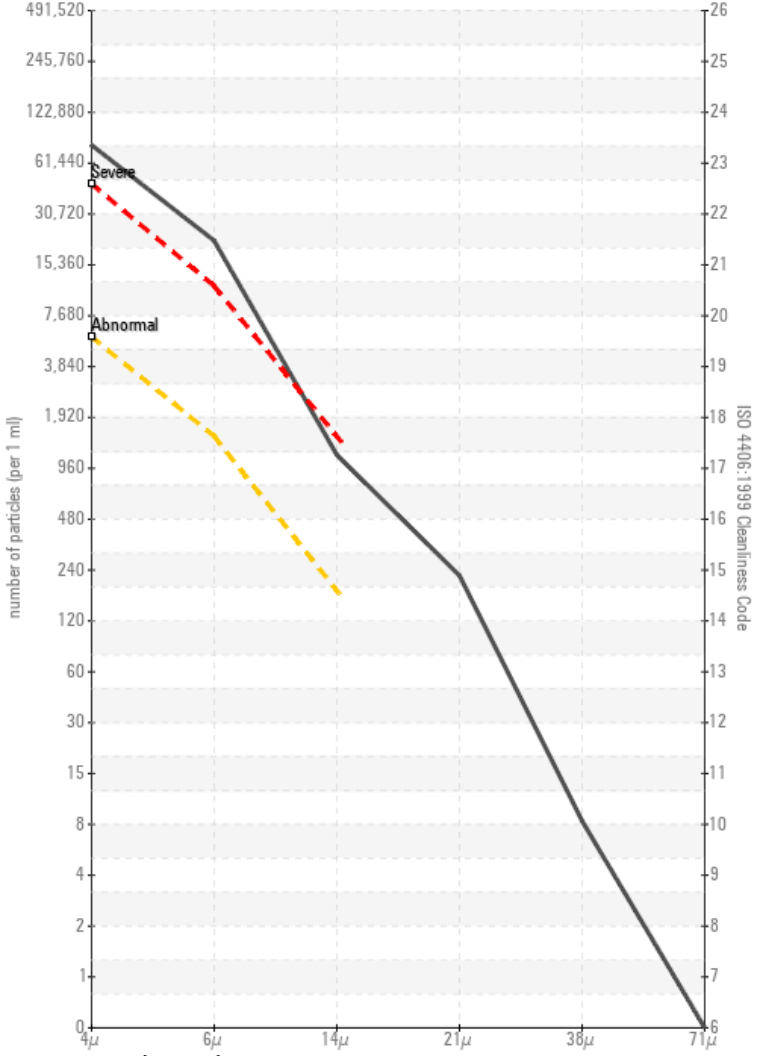
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

