



CONSTRUCTION EQUIPMENT

VOLVO L110H 631298 - HYDRAULIC SYSTEM



Sample No: VCP444101
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP444101	VCP393729	VCP398712	VCP334736
Sample Date	21 Feb 2024	18 Jul 2023	16 Dec 2022	02 Jun 2022
Machine Hours	9530	8405	7287	6331
Oil Hours	0	4000	3000	2000
Oil Changed	N/A	Changed	Not Changd	Not Changd
Sample Status	ABNORMAL	NORMAL	ABNORMAL	NORMAL

RIPA AND ASSOCIATES

10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.com
 T:
 F:



OIL CONDITION

Visc @ 40°C	cSt	43.7	44.0	43.0	43.2
Acid Number (AN)	mg KOH/g	0.38	0.34	0.38	0.34



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		18890	12333	48952	10390
Particles >6µm		4943	869	8788	442
Particles >14µm		475	43	631	19
ISO 4406:1999 (c)		21/19/16	21/17/13	23/20/16	21/16/11
Silicon	ppm	3	4	6	5
Sodium	ppm	1	3	2	0
Potassium	ppm	0	0	0	1

Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate 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	14	19	16	13
Copper	ppm	4	6	6	5
Lead	ppm	<1	2	2	2
Tin	ppm	<1	0	0	<1
Aluminum	ppm	<1	3	2	2
Chromium	ppm	3	5	4	3
Molybdenum	ppm	<1	2	2	2
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	92	83	89	85
Magnesium	ppm	2	4	4	6
Zinc	ppm	444	427	461	436
Phosphorus	ppm	338	345	354	328
Barium	ppm	0	0	0	2
Boron	ppm	1	0	0	3

Depot: RIPTAM
Unique No: 10900653
Signed: Wes Davis
Report Date: 29 Feb 2024

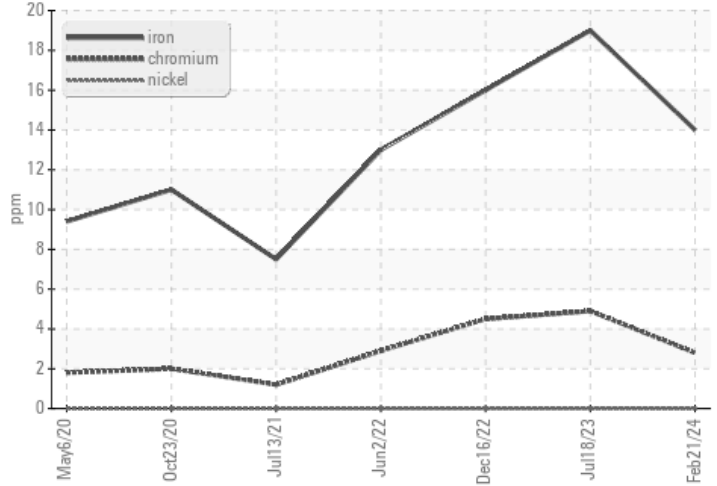


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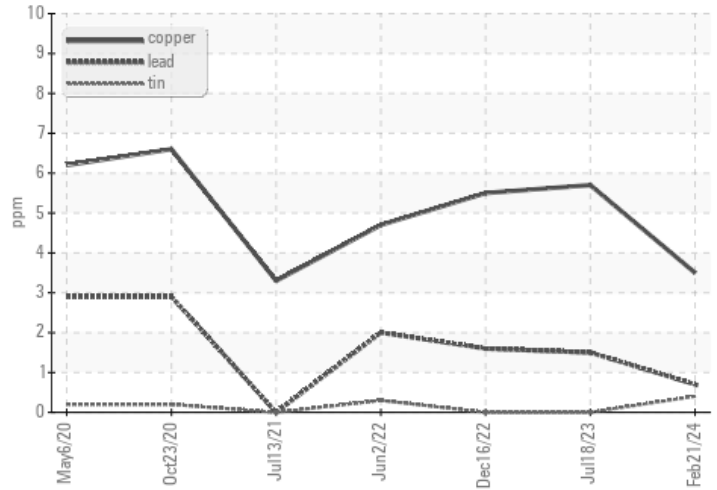


VOLVO GRAPHS

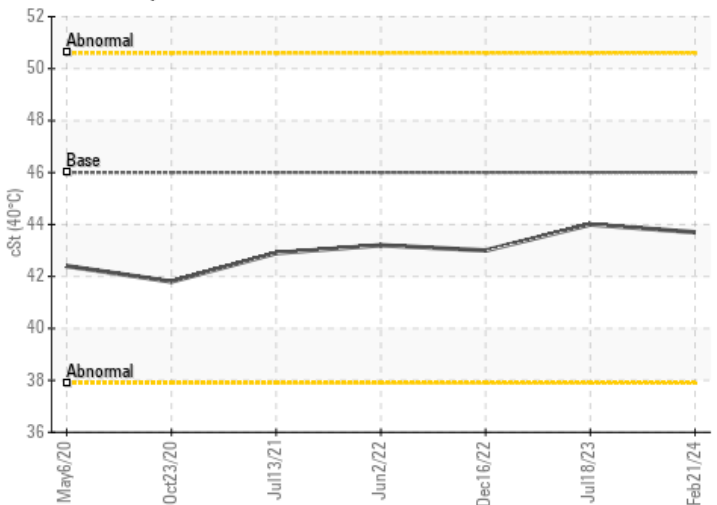
Ferrous Alloys



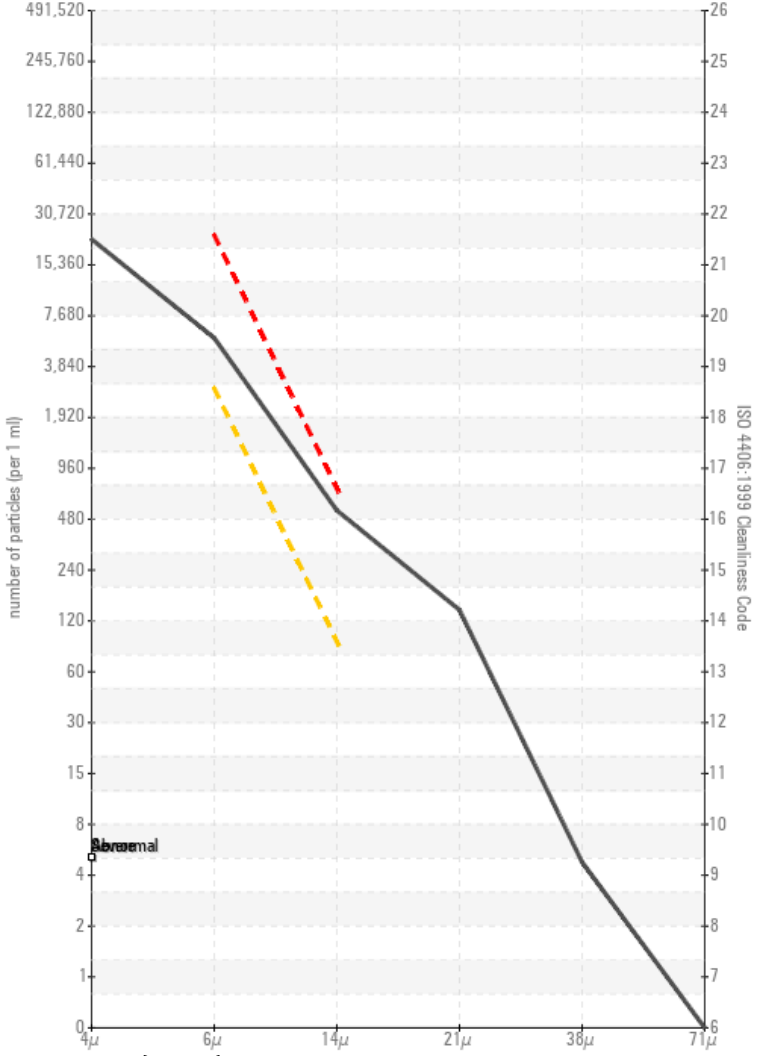
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

