



CONSTRUCTION EQUIPMENT

VOLVO L180H 5035 - HYDRAULIC SYSTEM



Sample No: VCP368528
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP368528	VCP337359	VCP287511	VCP280155
Sample Date	24 Oct 2023	16 Aug 2021	10 Dec 2020	20 Jul 2020
Machine Hours	11898	6535	5139	4264
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Changed
Sample Status	SEVERE	NORMAL	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 40°C	cSt	46.3	41.5	41.5	39.3
Acid Number (AN)	mg KOH/g	0.32	0.354	0.353	0.301

CONTAMINATION

Particles >4µm	47102	4283	9678	21020
Particles >6µm	16215	970	3091	7425
Particles >14µm	1120	36	237	432
ISO 4406:1999 (c)	23/21/17	19/17/12	20/19/15	22/20/16
Silicon	ppm	6	3	2
Sodium	ppm	5	<1	2
Potassium	ppm	5	0	<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	8	5	3	4
Copper	ppm	3	3	3	5
Lead	ppm	<1	1	1	2
Tin	ppm	<1	0	0	<1
Aluminum	ppm	<1	0	<1	<1
Chromium	ppm	2	1	<1	1
Molybdenum	ppm	5	1	1	0
Nickel	ppm	0	0	1	0
Titanium	ppm	<1	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	0	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	159	118	106	45
Magnesium	ppm	18	10	11	<1
Zinc	ppm	337	447	476	408
Phosphorus	ppm	244	367	372	334
Barium	ppm	0	0	0	0
Boron	ppm	6	3	2	0

Depot: VOLVO0090
Unique No: 10713707
Signed: Wes Davis
Report Date: 30 Oct 2023

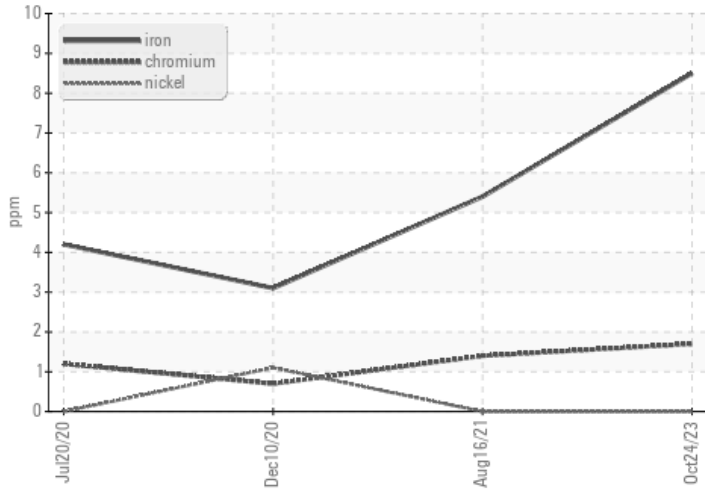


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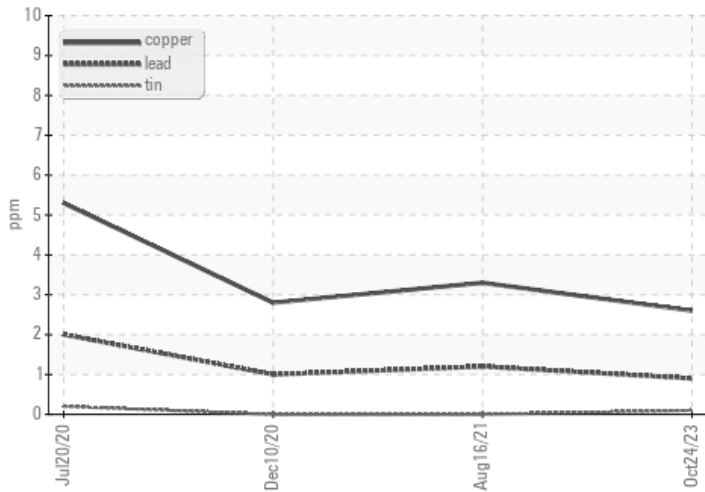


GRAPHS

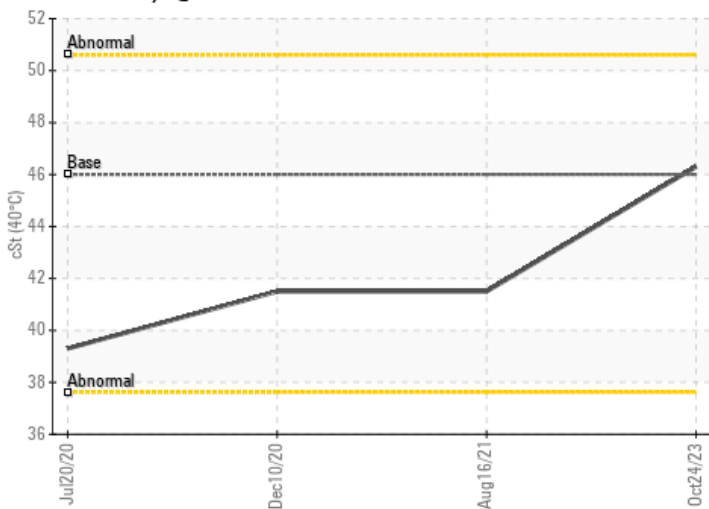
Ferrous Alloys



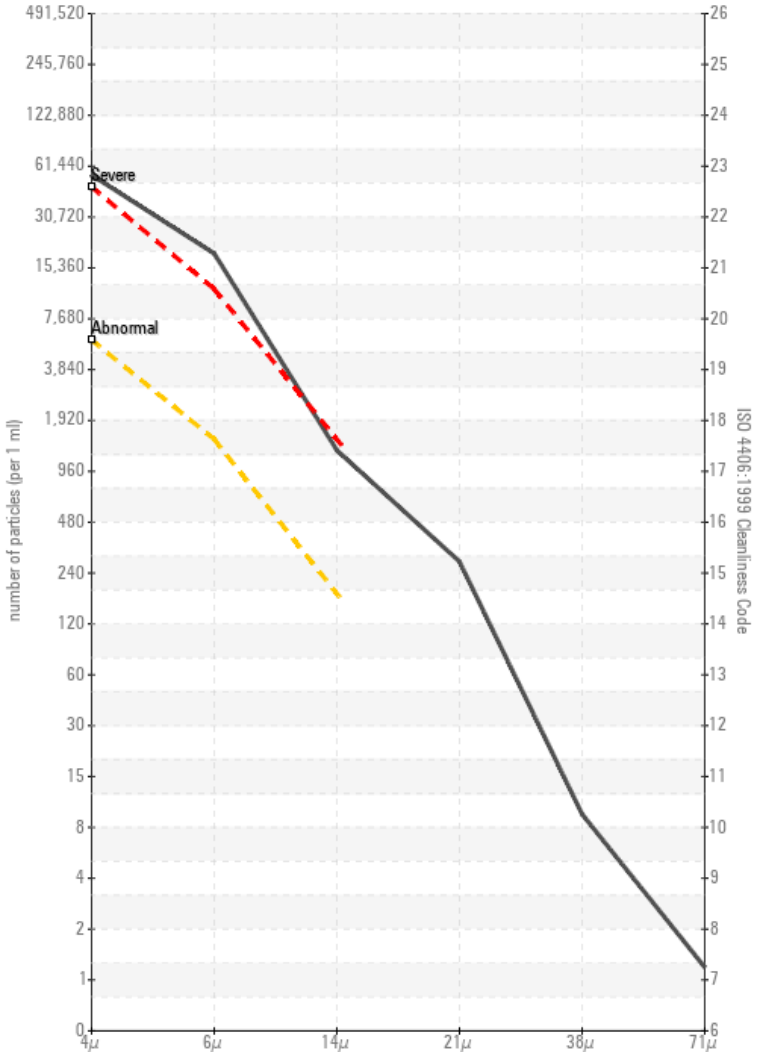
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

