



CONSTRUCTION EQUIPMENT

594651 VOLVO EW180 320056 - HYDRAULIC SYSTEM



Sample No: VCP412527
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 594651



SAMPLE INFORMATION

Sample Number	VCP412527	VCP381506	VCP359944	VCP310140
Sample Date	17 Aug 2023	31 Oct 2022	27 Jun 2022	26 Jun 2021
Machine Hours	3505	3440	6528	2404
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

HUBBARD CONSTRUCTION
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OIL CONDITION

Visc @ 40°C	cSt	45.3	45.1	45.6	44.5
Acid Number (AN)	mg KOH/g	0.69	0.71	0.67	0.545



CONTAMINATION

Particles >4µm		52602	12427	3380	8674
Particles >6µm		18046	2636	619	420
Particles >14µm		1467	186	44	6
ISO 4406:1999 (c)		23/21/18	21/19/15	19/16/13	20/16/10
Silicon	ppm	30	29	34	5
Sodium	ppm	1	2	0	2
Potassium	ppm	<1	0	2	0

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present 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	10	10	10	10
Copper	ppm	21	21	21	27
Lead	ppm	2	2	2	2
Tin	ppm	0	<1	<1	0
Aluminum	ppm	1	1	2	<1
Chromium	ppm	3	3	3	3
Molybdenum	ppm	1	1	1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	480	490	491	150
Magnesium	ppm	15	14	16	12
Zinc	ppm	633	643	645	610
Phosphorus	ppm	515	490	507	473
Barium	ppm	0	0	2	0
Boron	ppm	0	2	2	1

Depot: HUBORL
Unique No: 10617372
Signed: Wes Davis
Report Date: 24 Aug 2023

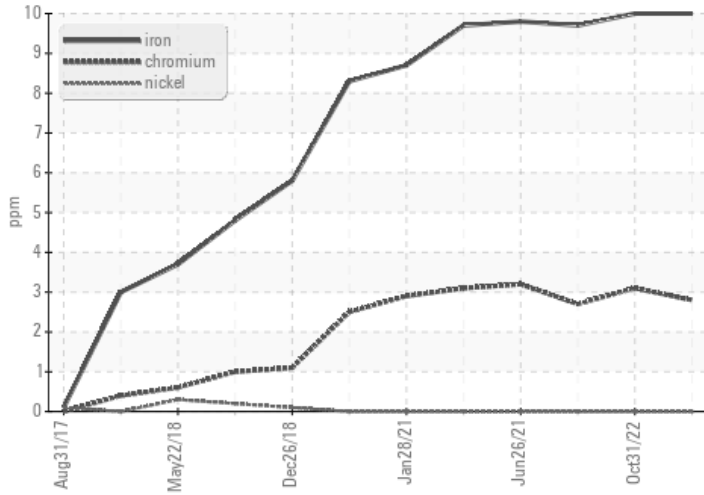


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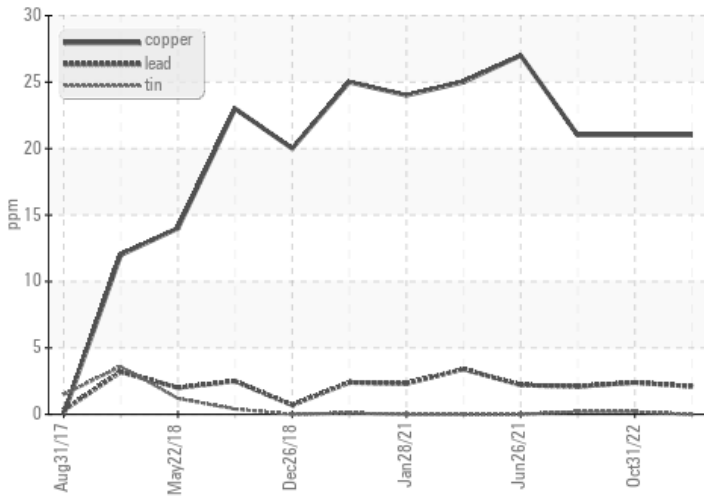


VOLVO GRAPHS

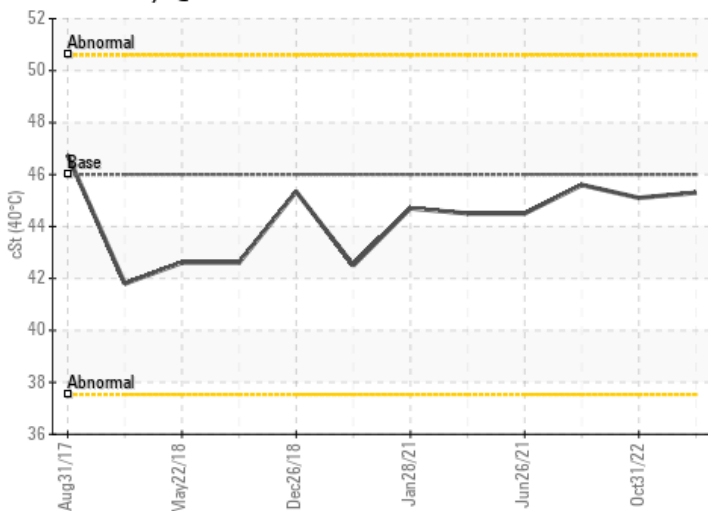
Ferrous Alloys



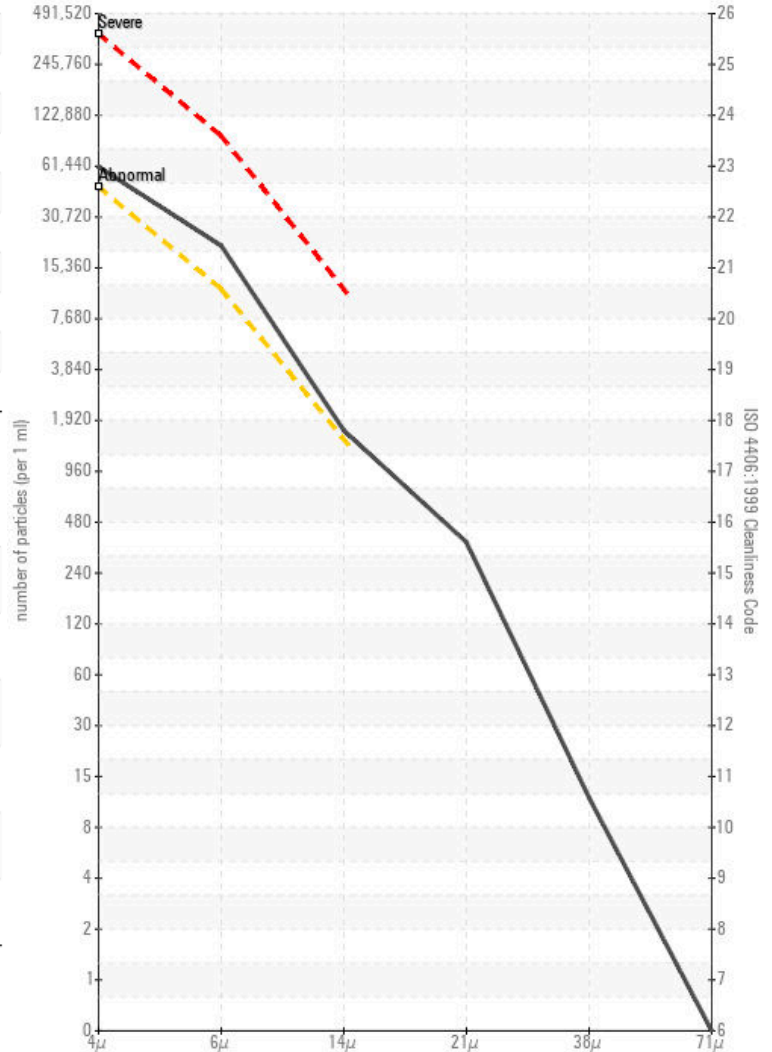
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

