



CONSTRUCTION EQUIPMENT

VOLVO SD115B 236651 - HYDRAULIC SYSTEM



Sample No: VCP411983
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP411983	VCP350173	VCP322144	VCP301582
Sample Date	23 Aug 2023	02 May 2022	15 Sep 2021	10 Feb 2021
Machine Hours	0	2754	2331	1548
Oil Hours	0	754	1500	1548
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

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



OIL CONDITION

Visc @ 40°C	cSt	▲ 59.92	■ 50.4	■ 51.3	▲ 54.12
Acid Number (AN)	mg KOH/g	■ 0.35	■ 0.43	■ 0.395	■ 0.264



CONTAMINATION

Particles >4µm	▲ 128641	▲ 13186	▲ 16842	▲ 41241	
Particles >6µm	▲ 36804	▲ 2547	■ 207	■ 1047	
Particles >14µm	▲ 3487	▲ 186	■ 3	■ 29	
ISO 4406:1999 (c)	24/22/19	21/19/15	21/15/9	23/17/12	
Silicon	ppm	■ 2	■ 2	■ 4	■ 1
Sodium	ppm	■ 1	■ <1	■ 1	■ 0
Potassium	ppm	■ <1	■ 0	■ 2	■ 2

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. The iron level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. 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	▲ 42	■ 13	▲ 35	▲ 37
Copper	ppm	■ 17	■ 8	■ 18	■ 15
Lead	ppm	■ 3	■ <1	■ 4	■ 7
Tin	ppm	■ 0	■ <1	■ 0	■ <1
Aluminum	ppm	■ 0	■ <1	■ <1	■ 0
Chromium	ppm	■ <1	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 0	■ 4	■ 0	■ <1
Nickel	ppm	■ 0	0	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	<1	0	<1
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 65	■ 108	■ 87	■ 106
Magnesium	ppm	■ 9	■ 8	■ <1	■ <1
Zinc	ppm	■ 436	■ 387	■ 345	■ 322
Phosphorus	ppm	■ 259	■ 345	■ 390	■ 412
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 0	■ 4	■ 4	■ 1

Depot: RIPTAM
Unique No: 10655157
Signed: Jonathan Hester
Report Date: 25 Sep 2023

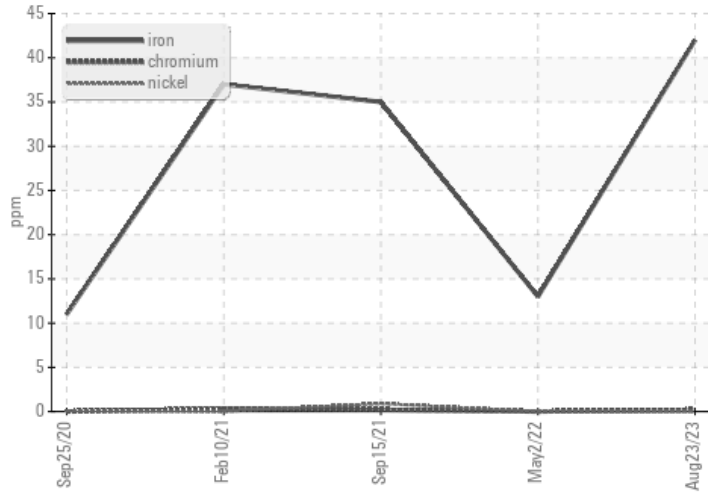


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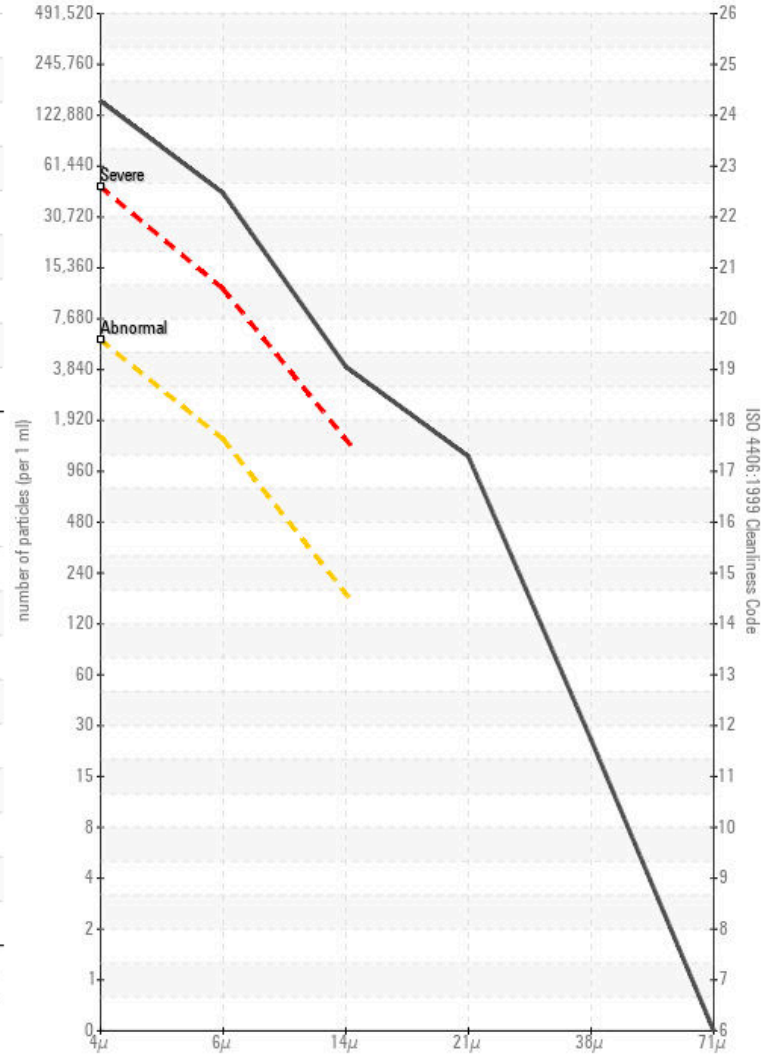


GRAPHS

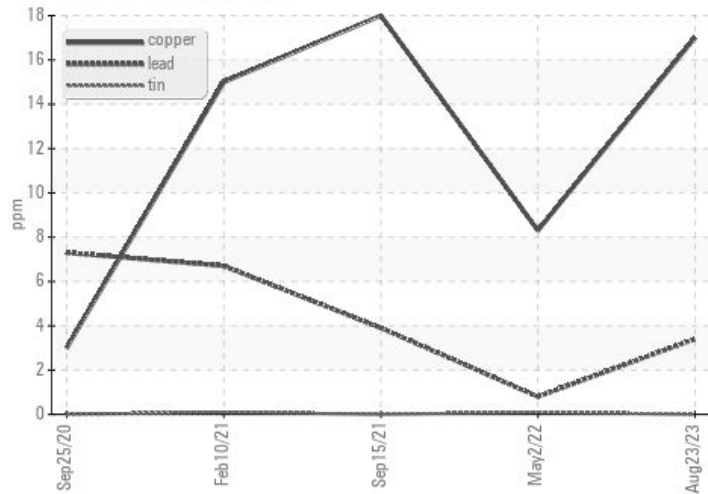
▲ Ferrous Alloys



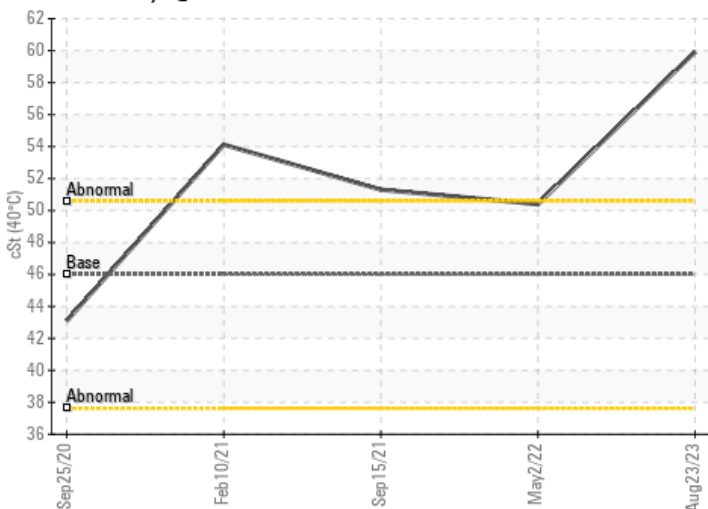
▲ Particle Count



Non-ferrous Metals



▲ Viscosity @ 40°C



Acid Number

