



CONSTRUCTION EQUIPMENT

VOLVO A40G 352513 - HYDRAULIC SYSTEM



Sample No: VCP440632
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP440632	VCP393531	VCP390649	VCP360245
Sample Date	17 Nov 2023	31 Jul 2023	26 Sep 2022	16 Mar 2022
Machine Hours	5635	5166	3603	2597
Oil Hours	0	0	500	2597
Oil Changed	N/A	Changed	Not Changd	Changed
Sample Status	SEVERE	ATTENTION	ATTENTION	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	43.7	43.7	43.6
Acid Number (AN)	mg KOH/g	0.25	0.37	0.38	0.44

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		32755	6443	5883	5479
Particles >6µm		12437	1971	1790	803
Particles >14µm		1646	166	190	42
ISO 4406:1999 (c)		22/21/18	20/18/15	20/18/15	20/17/13
Silicon	ppm	3	5	6	5
Sodium	ppm	0	2	2	0
Potassium	ppm	0	0	0	1

WEAR METALS

Iron	ppm	5	9	9	7
Copper	ppm	<1	2	4	3
Lead	ppm	1	2	3	3
Tin	ppm	0	0	0	<1
Aluminum	ppm	<1	2	2	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	<1	0	<1	<1
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	0	<1	0	0

ADDITIVES

Calcium	ppm	62	60	91	83
Magnesium	ppm	2	0	2	1
Zinc	ppm	398	430	421	407
Phosphorus	ppm	314	342	323	304
Barium	ppm	0	0	0	0
Boron	ppm	0	0	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.

Depot: RIPTAM
Unique No: 10777450
Signed: Wes Davis
Report Date: 08 Dec 2023

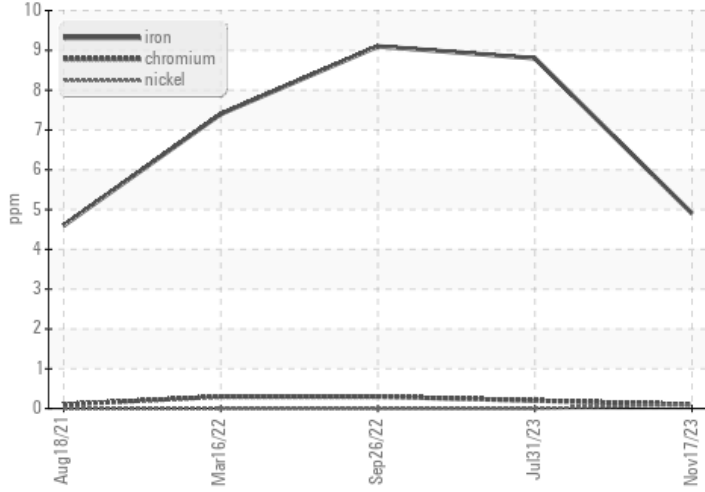


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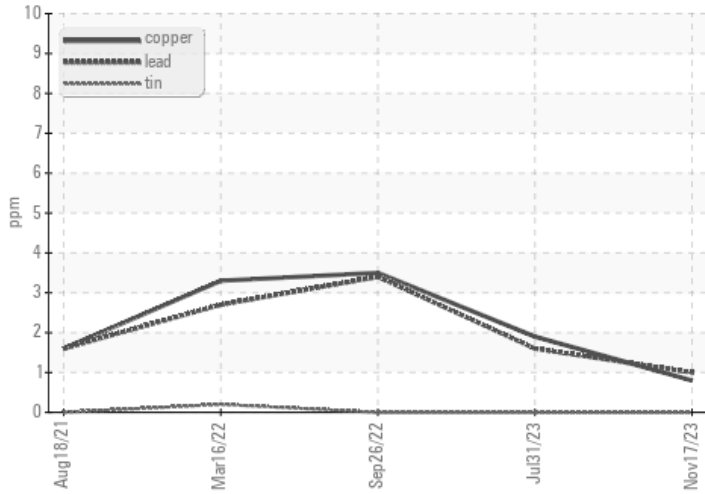


GRAPHS

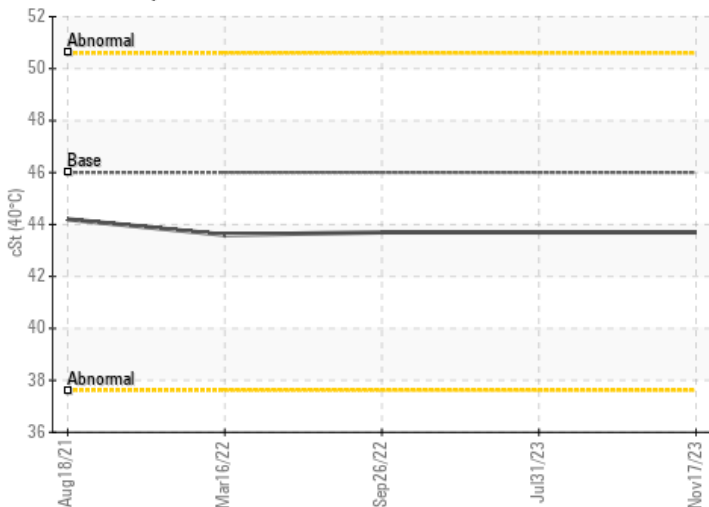
Ferrous Alloys



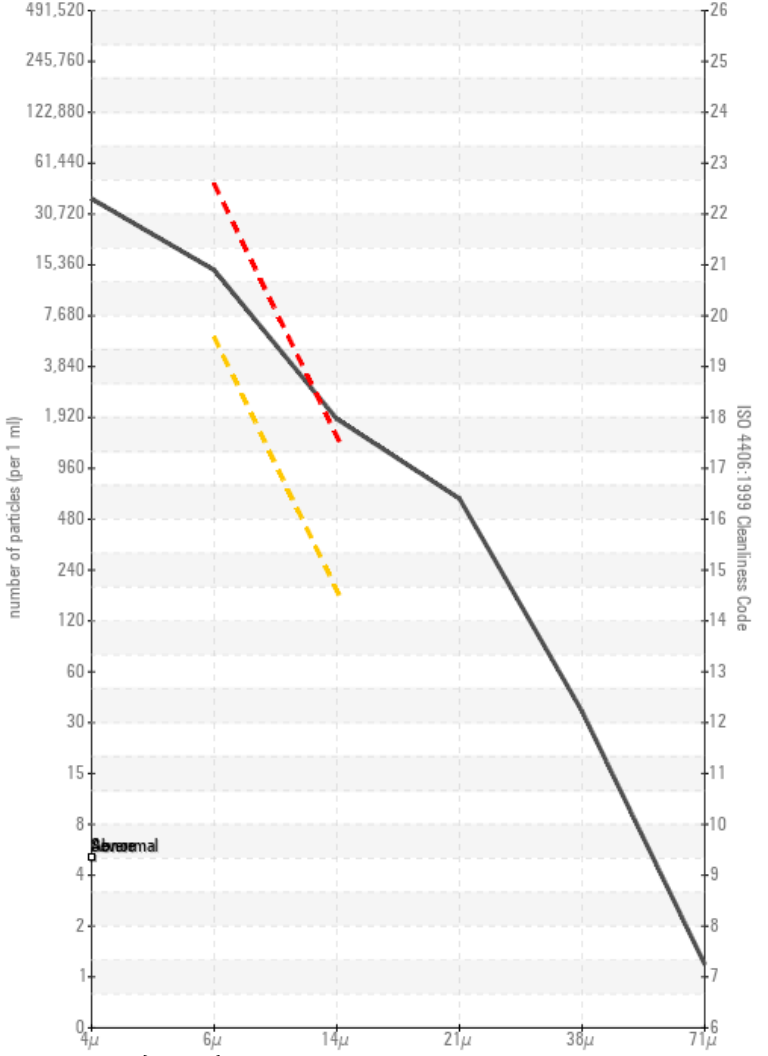
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

