



CONSTRUCTION EQUIPMENT

594089 DIPRO VOLVO L220 3352 - HYDRAULIC SYSTEM



Sample No: VCP411897
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 594089 DIPRO



SAMPLE INFORMATION

Sample Number	VCP411897	VCP421773	VCP380942	VCP388945
Sample Date	14 Aug 2023	22 Mar 2023	13 Dec 2022	04 Aug 2022
Machine Hours	6368	4140	2544	955
Oil Hours	2000	4140	2544	955
Oil Changed	Not Chngd	Changed	Not Chngd	Not Chngd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 40°C	cSt	43.0	41.5	42.1	42.8
Acid Number (AN)	mg KOH/g	0.42	0.38	0.33	0.33



CONTAMINATION

Water	%	0.115	---	---	---
Particles >4µm		---	---	38592	---
Particles >6µm		---	---	11075	---
Particles >14µm		---	---	1017	---
ISO 4406:1999 (c)		---	---	22/21/17	---
Silicon	ppm	<1	1	<1	<1
Sodium	ppm	2	1	<1	0
Potassium	ppm	0	<1	0	1

Diagnosis

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



WEAR METALS

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



ADDITIVES

Calcium	ppm	29	58	60	63
Magnesium	ppm	0	2	0	<1
Zinc	ppm	480	424	441	438
Phosphorus	ppm	384	322	354	332
Barium	ppm	0	0	0	0
Boron	ppm	0	0	0	0

Depot: VOLVO2990
Unique No: 10616761
Signed: Don Baldrige
Report Date: 24 Aug 2023

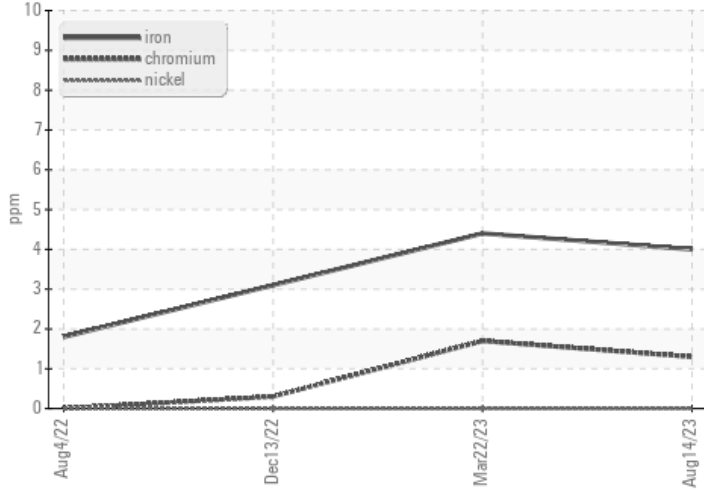


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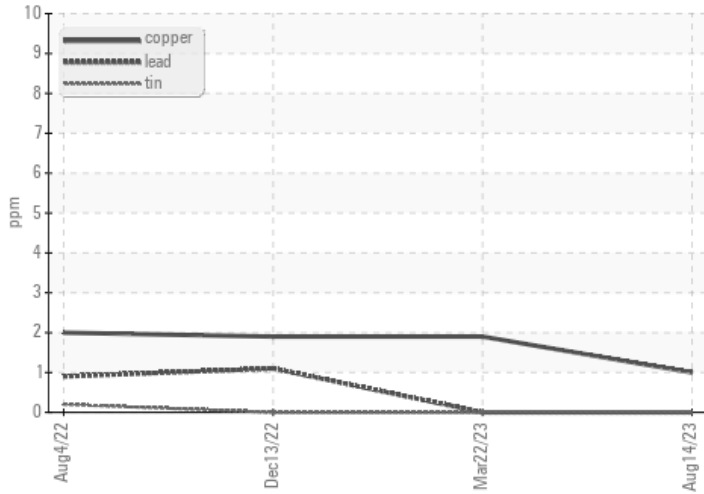


GRAPHS

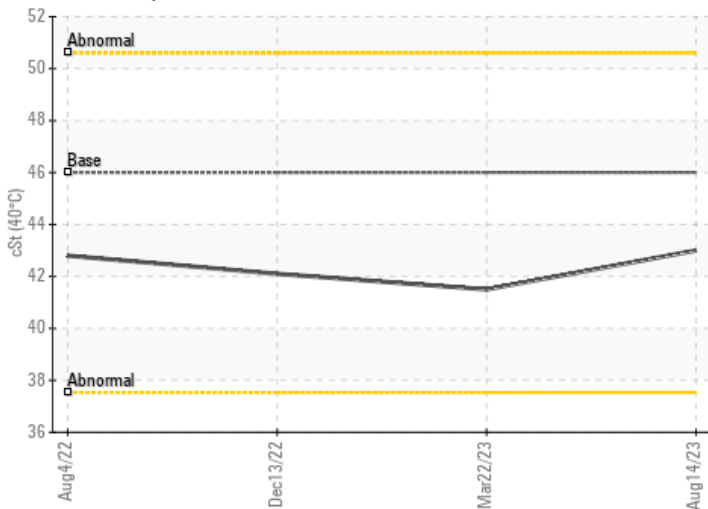
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

