

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 038194-1007 - Hydraulic System

Sample No: LH0244695

Oil Type: MV 46



Sample Information

Sample Number	LH0244695	LH0244881	LH0230032	LH0190604
Sample Date	06 May 2024	25 Apr 2023	28 Nov 2022	28 Feb 2022
Machine Hours	36956	35282	33796	32149
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

INTEGRITY METALS

835 EAST INDUSTRIAL

MORRISTOWN, IN

US 46161

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Oil Condition

Visc @ 40°C	cSt	61.0	59.8	59.5	51.8
Acid Number (AN)	mg KOH/g	0.43	0.39	0.18	0.37



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		6804	43608	3678	14475
Particles >6µm		772	1863	510	657
Particles >14µm		32	10	24	42
ISO 4406:1999 (c)		20/17/12	23/18/10	19/16/12	21/17/13
Silicon	ppm	<1	<1	<1	1
Sodium	ppm	2	<1	<1	0
Potassium	ppm	2	0	0	2

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Wear Metals

Iron	ppm	11	15	16	25
Copper	ppm	3	2	2	5
Lead	ppm	<1	0	0	<1
Tin	ppm	<1	0	0	<1
Aluminum	ppm	<1	<1	<1	1
Chromium	ppm	1	1	<1	1
Molybdenum	ppm	0	<1	0	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	50	93	88	95
Magnesium	ppm	3	2	<1	2
Zinc	ppm	429	458	419	450
Phosphorus	ppm	368	366	356	339
Barium	ppm	0	0	0	0
Boron	ppm	0	0	0	<1

Depot: INTMORLH

Unique No: 11017996

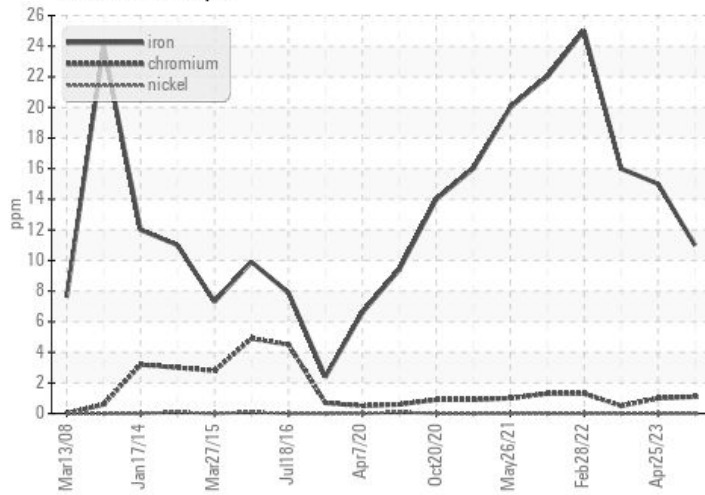
Signed: Wes Davis

Report Date: 08 May 2024

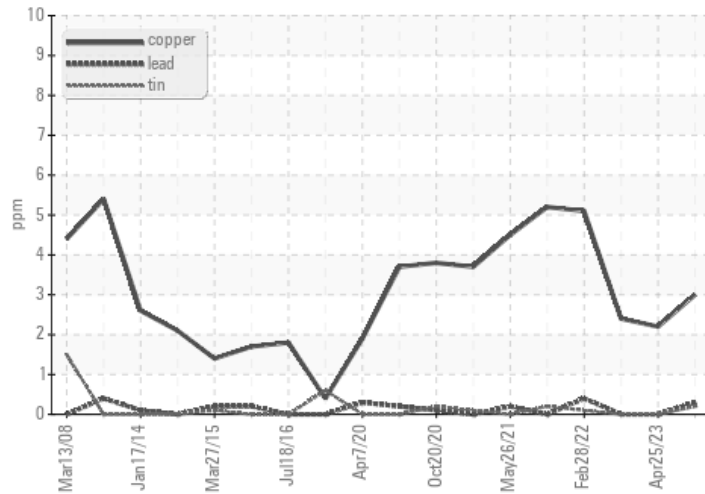


Graphs

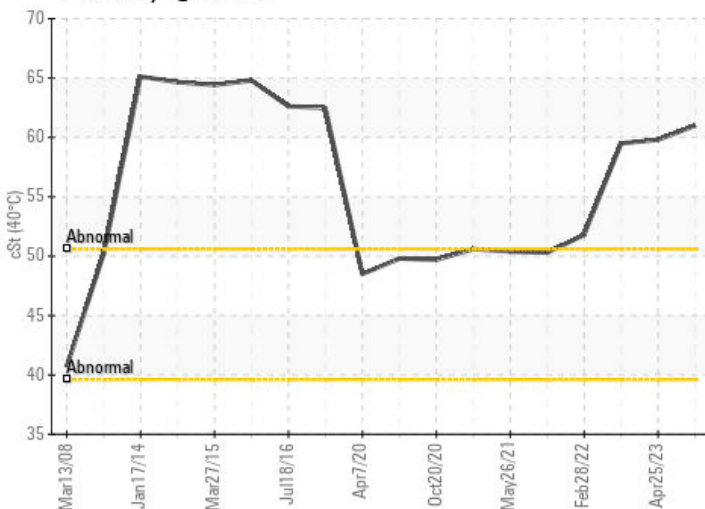
Ferrous Alloys



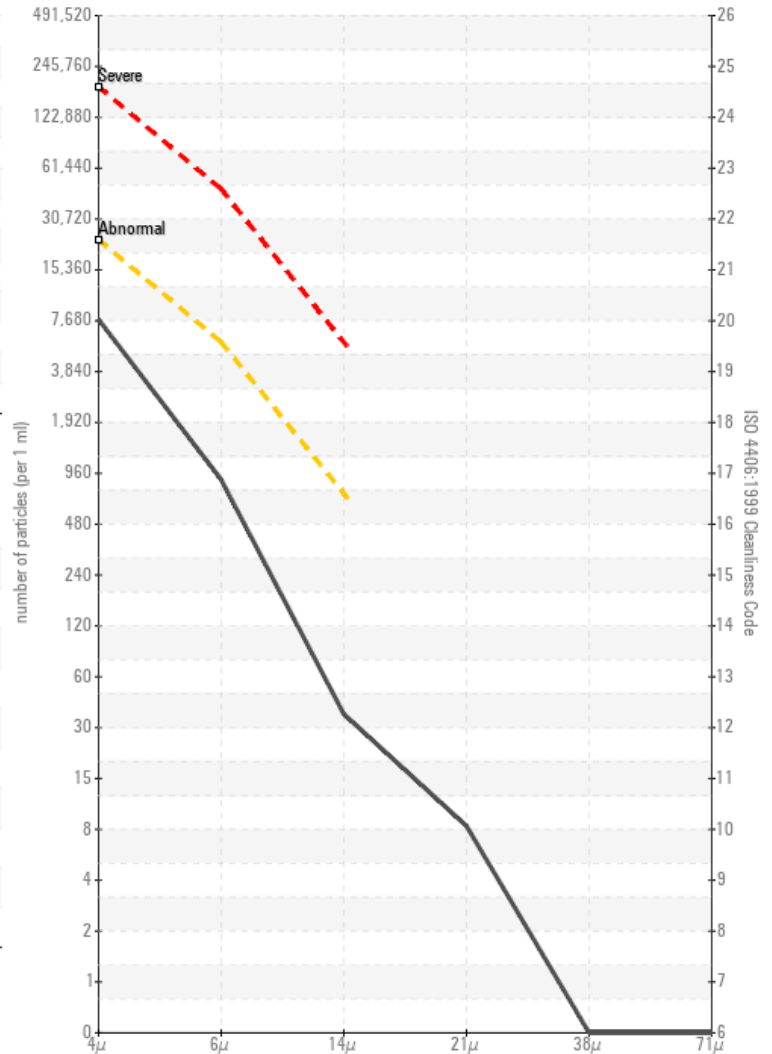
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

