LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH40 ML13 - Hydraulic System

Sample No: LH0244805

Oil Type: AW HYDRAULIC OIL ISO 68

Sample Information

Sample Number		**LH0244805**	LHMC122823	LHMC103201	---
Sample Date		**23 Apr 2024**	04 Aug 2023	11 May 2023	---
Machine Hours		**13598**	12102	11583	---
Oil Hours		**0**	0	0	---
Oil Changed		**Not Changd**	N/A	Not Changd	---
Sample Status		**NORMAL**	NORMAL	NORMAL	---

Oil Condition

Visc @ 40°C	cSt	**54.4**	55.5	57.2	---
Acid Number (AN)	mg KOH/g	**0.60**	0.53	0.52	---

Contamination

Water	%	**NEG**	NEG	NEG	---
Particles >4µm		**1174**	16022	2581	---
Particles >6µm		**180**	2974	474	---
Particles >14µm		**13**	99	32	---
ISO 4406:1999 (c)		**17/15/11**	21/19/14	19/16/12	---
Silicon	ppm	**2**	1	<1	---
Sodium	ppm	**<1**	2	0	---
Potassium	ppm	**2**	<1	<1	---

Wear Metals

Iron	ppm	**9**	8	7	---
Copper	ppm	**4**	3	3	---
Lead	ppm	**2**	<1	<1	---
Tin	ppm	**1**	0	0	---
Aluminum	ppm	**2**	0	0	---
Chromium	ppm	**2**	<1	<1	---
Molybdenum	ppm	**1**	<1	0	---
Nickel	ppm	**1**	0	0	---
Titanium	ppm	**<1**	0	0	---
Silver	ppm	**<1**	0	0	---
Manganese	ppm	**1**	0	0	---
Vanadium	ppm	**<1**	0	0	---

Additives

Calcium	ppm	**279**	283	311	---
Magnesium	ppm	**3**	<1	2	---
Zinc	ppm	**481**	519	486	---
Phosphorus	ppm	**387**	390	370	---
Barium	ppm	**<1**	0	0	---
Boron	ppm	**0**	0	0	---

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Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.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.

Depot: OSCLAF
Unique No: 10995194
Signed: Wes Davis
Report Date: 25 Apr 2024

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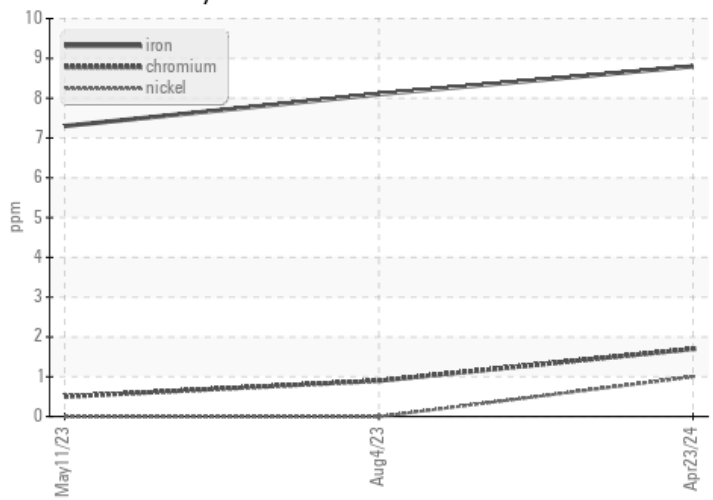
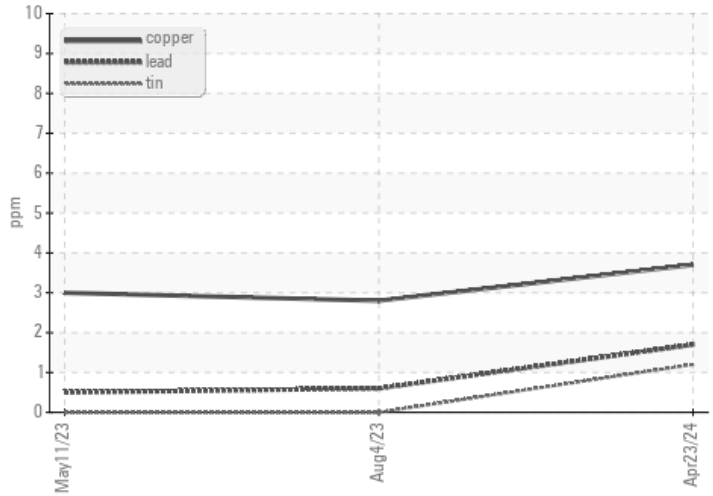
Graphs

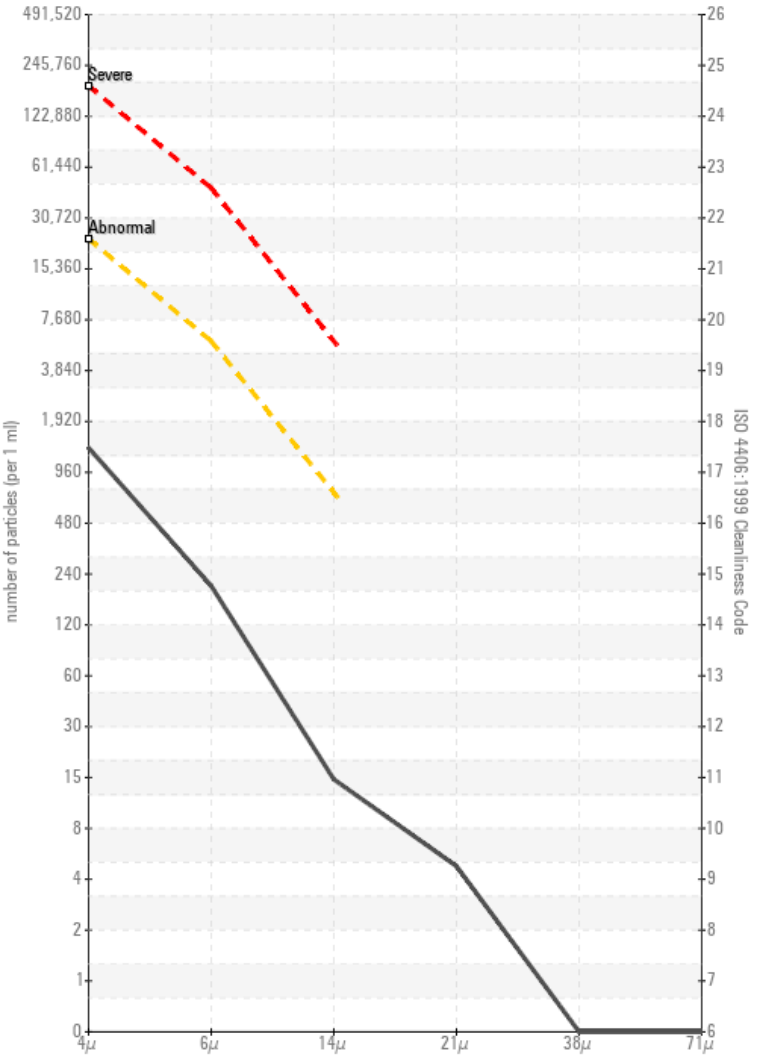
Ferrous Alloys



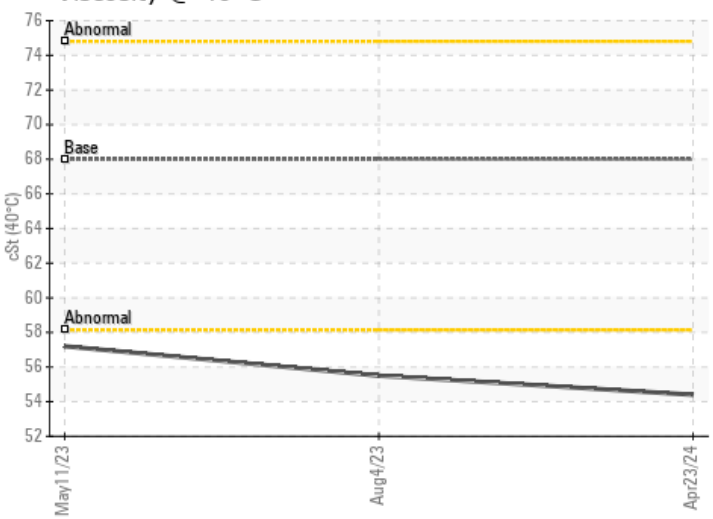
Non-ferrous Metals



Particle Count



Viscosity @ 40°C



Acid Number