LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH50 1216-131191 - Hydraulic System

Sample No: LH0227818

Oil Type: LIEBHERR HYDRAULIC HVI

KOPPERS RECOVERY RESOURCES
17961 US HIGHWAY 41
L`ANSE, MI
US 49946
Contact: Service Manager

T:
F:

SAMPLE INFORMATION

Sample Number		**LH0227818**	LH0227806	---	---
Sample Date		**12 Oct 2023**	08 Feb 2023	---	---
Machine Hours		**1905**	1117	---	---
Oil Hours		**0**	0	---	---
Oil Changed		**Not Changd**	Not Changd	---	---
Sample Status		**NORMAL**	NORMAL	---	---

OIL CONDITION

Visc @ 40°C	cSt	**44.3**	44.8	---	---
Acid Number (AN)	mg KOH/g	**0.96**	0.99	---	---

CONTAMINATION

Particles >4µm		**8794**	1326	---	---
Particles >6µm		**1975**	75	---	---
Particles >14µm		**110**	6	---	---
ISO 4406:1999 (c)		**20/18/14**	18/13/10	---	---
Silicon	ppm	**1**	2	---	---
Sodium	ppm	**1**	1	---	---
Potassium	ppm	**0**	0	---	---

WEAR METALS

Iron	ppm	**14**	14	---	---
Copper	ppm	**2**	1	---	---
Lead	ppm	**0**	<1	---	---
Tin	ppm	**0**	0	---	---
Aluminum	ppm	**<1**	<1	---	---
Chromium	ppm	**<1**	<1	---	---
Molybdenum	ppm	**0**	0	---	---
Nickel	ppm	**0**	0	---	---
Titanium	ppm	**0**	0	---	---
Silver	ppm	**0**	0	---	---
Manganese	ppm	**<1**	<1	---	---
Vanadium	ppm	**0**	0	---	---

ADDITIVES

Calcium	ppm	**946**	1115	---	---
Magnesium	ppm	**19**	9	---	---
Zinc	ppm	**580**	616	---	---
Phosphorus	ppm	**507**	540	---	---
Barium	ppm	**0**	0	---	---
Boron	ppm	**0**	0	---	---

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.

Depot: KOPLAN
Unique No: 10701463
Signed: Wes Davis
Report Date: 20 Oct 2023

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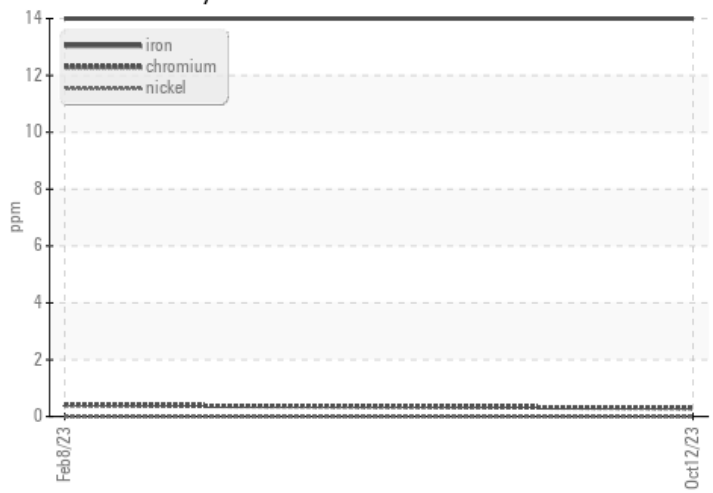
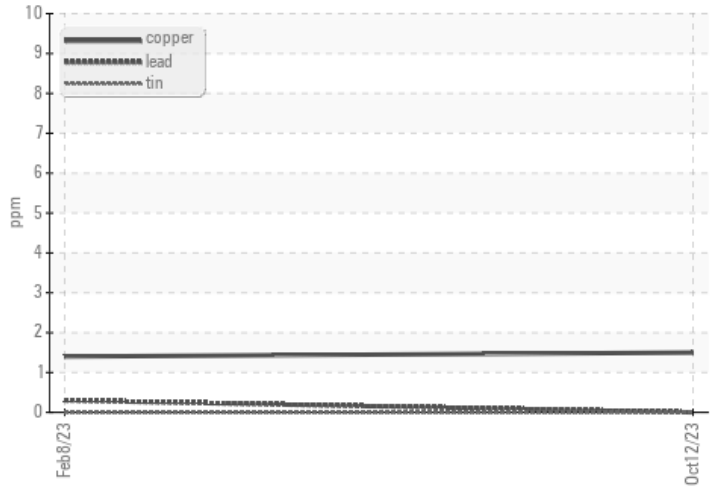
GRAPHS

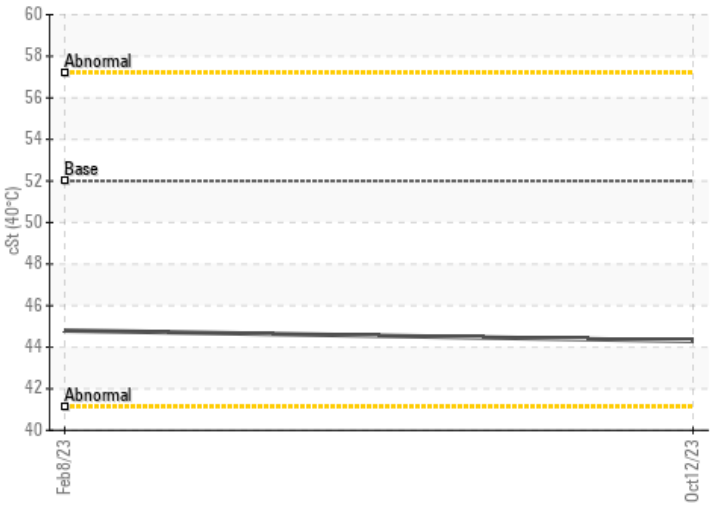
Ferrous Alloys



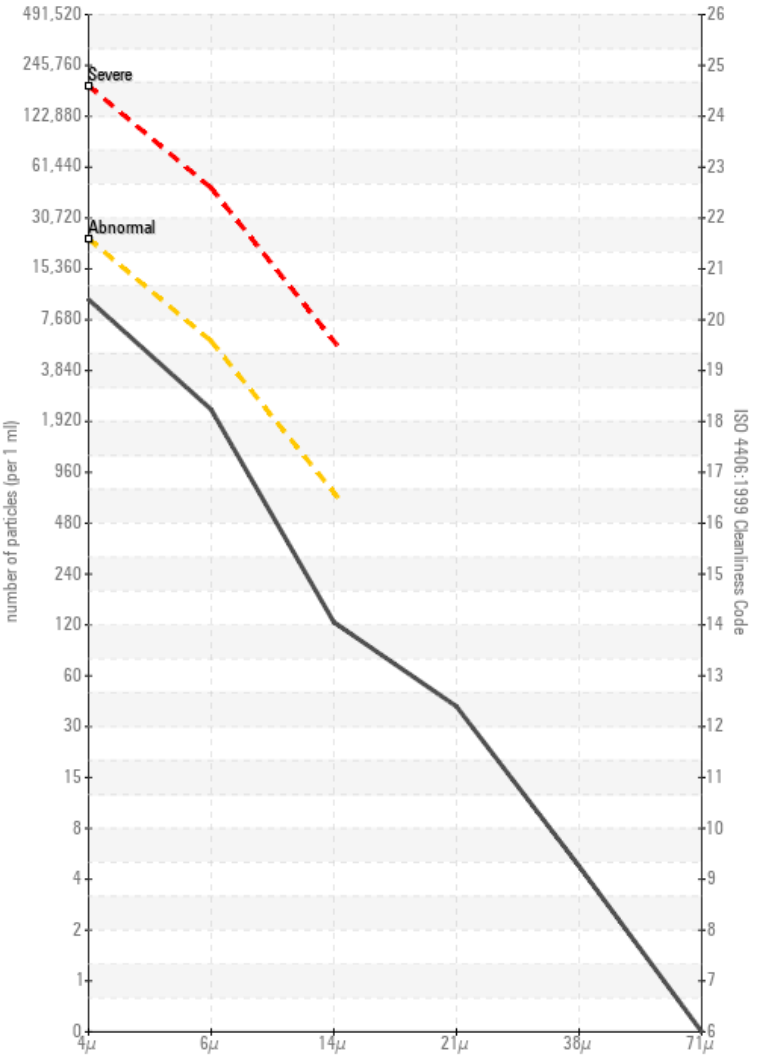
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number