

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30 105464-1253 - Hydraulic System

Sample No: LH0258320

Oil Type: LIEBHERR HYDRAULIC HVI



TRAM CONSTRUCTION

9279 E KY 8
GARRISON, KY
US 41141
Contact: Service Manager

T:
F:



SAMPLE INFORMATION

Sample Number	LH0258320	LHMC164162	LHMC117740	---
Sample Date	11 Aug 2023	24 Jul 2019	19 Feb 2019	---
Machine Hours	6183	883	448	---
Oil Hours	0	0	448	---
Oil Changed	Not Changd	N/A	N/A	---
Sample Status	NORMAL	ABNORMAL	ABNORMAL	---



OIL CONDITION

Visc @ 40°C	cSt	42.9	45.1	46.6	---
Acid Number (AN)	mg KOH/g	1.00	1.081	1.324	---



CONTAMINATION

Water	%	---	---	0.049	---
Particles >4µm		2469	38260	15425	---
Particles >6µm		796	11026	8402	---
Particles >14µm		82	375	1431	---
ISO 4406:1999 (c)		18/17/14	22/21/16	21/20/18	---
Silicon	ppm	2	3	2	---
Sodium	ppm	4	2	1	---
Potassium	ppm	2	11	2	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	23	12	9	---
Copper	ppm	9	3	3	---
Lead	ppm	2	<1	<1	---
Tin	ppm	0	0	<1	---
Aluminum	ppm	<1	<1	<1	---
Chromium	ppm	1	<1	<1	---
Molybdenum	ppm	<1	<1	0	---
Nickel	ppm	0	<1	0	---
Titanium	ppm	0	<1	0	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

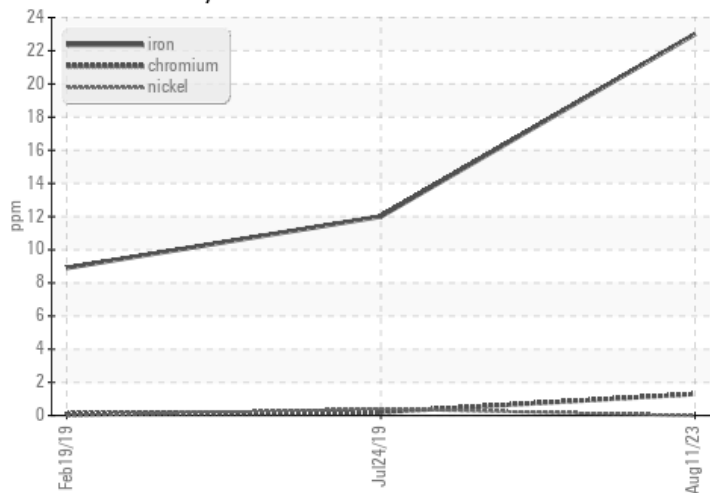
Calcium	ppm	1374	1335	1368	---
Magnesium	ppm	7	6	6	---
Zinc	ppm	700	654	665	---
Phosphorus	ppm	545	492	575	---
Barium	ppm	0	0	0	---
Boron	ppm	0	<1	2	---

Depot: TRAGARLH
Unique No: 10615565
Signed: Jonathan Hester
Report Date: 23 Aug 2023

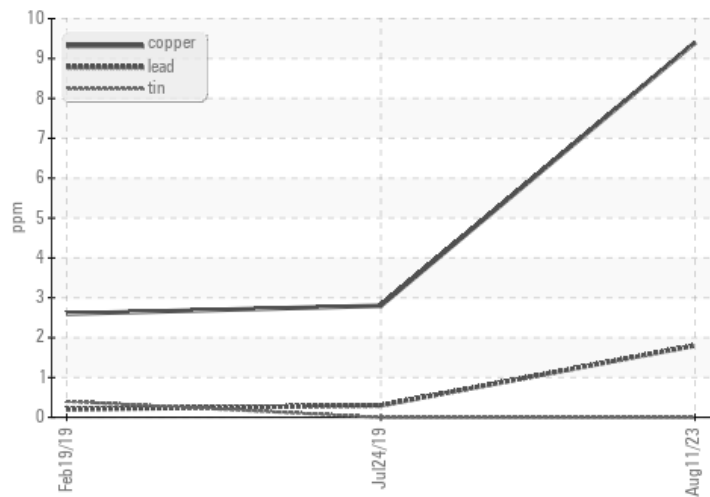


GRAPHS

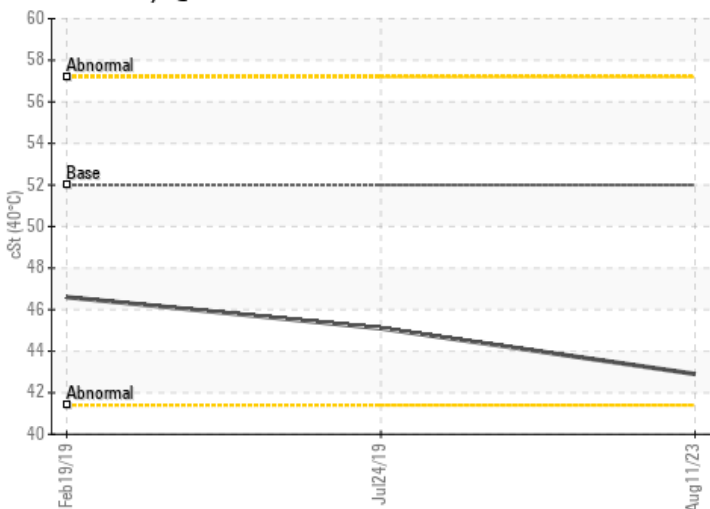
Ferrous Alloys



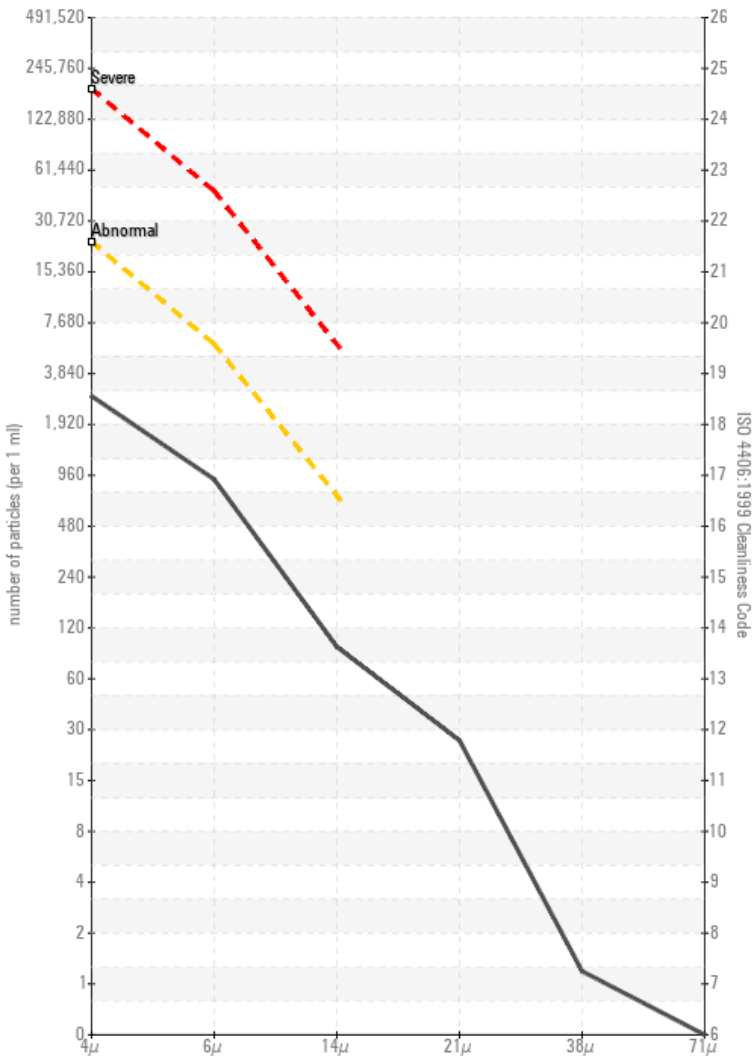
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

