

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH80M 1213-92590 - Hydraulic System

Sample No: LH06230107

Oil Type: LIEBHERR HYDRAULIC HVI



#### OZINGA BROS INC

19001 OLD LAGRANDE RD, SUITE 300  
MOKENA, IL  
US 60448  
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#### Sample Information

Sample Number	LH06230107	LHMC130098	LHMC130518	LHMC115768
Sample Date	27 Mar 2024	09 May 2020	27 Nov 2019	06 Mar 2018
Machine Hours	11144	6109	5341	2080
Oil Hours	0	6109	5341	0
Oil Changed	Not Changd	Changed	N/A	Not Changd
Sample Status	NORMAL	NORMAL	ATTENTION	ABNORMAL



#### Oil Condition

Visc @ 40°C	cSt	57.8	46.1	43.0	41.82
Acid Number (AN)	mg KOH/g	0.50	0.819	0.715	0.847



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		4191	848	34669	99900
Particles >6µm		357	258	9423	10204
Particles >14µm		5	23	572	41
ISO 4406:1999 (c)		19/16/10	17/15/12	22/20/16	24/21/13
Silicon	ppm	1	11	13	11
Sodium	ppm	2	4	4	2
Potassium	ppm	<1	1	2	<1



#### Wear Metals

Iron	ppm	10	73	56	19
Copper	ppm	2	24	22	14
Lead	ppm	0	1	<1	<1
Tin	ppm	0	<1	1	0
Aluminum	ppm	0	<1	<1	<1
Chromium	ppm	<1	1	1	<1
Molybdenum	ppm	5	<1	0	0
Nickel	ppm	0	0	<1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	2	2	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	239	1157	1267	1366
Magnesium	ppm	18	9	7	6
Zinc	ppm	444	633	654	635
Phosphorus	ppm	355	489	515	562
Barium	ppm	0	0	0	0
Boron	ppm	6	2	1	<1

#### Diagnosis

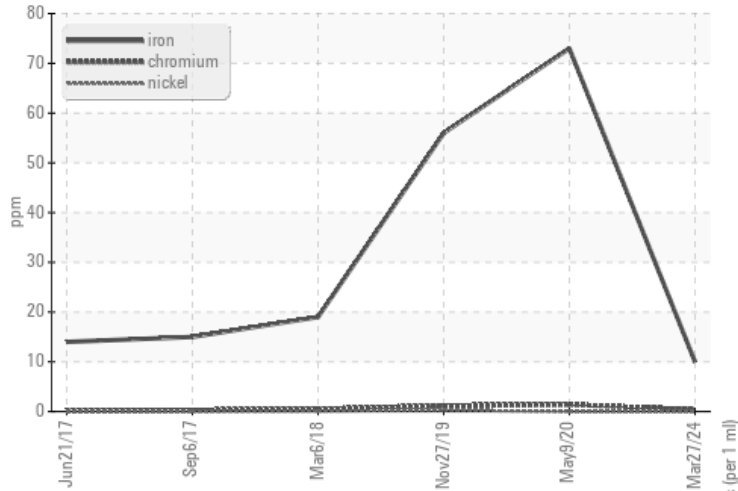
Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil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

Depot: OZIMOKLH  
Unique No: 11113600  
Signed: Don Baldrige  
Report Date: 09 Jul 2024

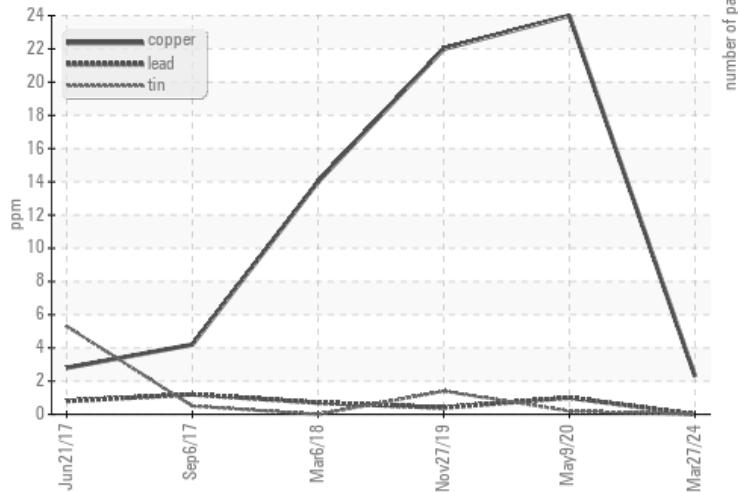


### Graphs

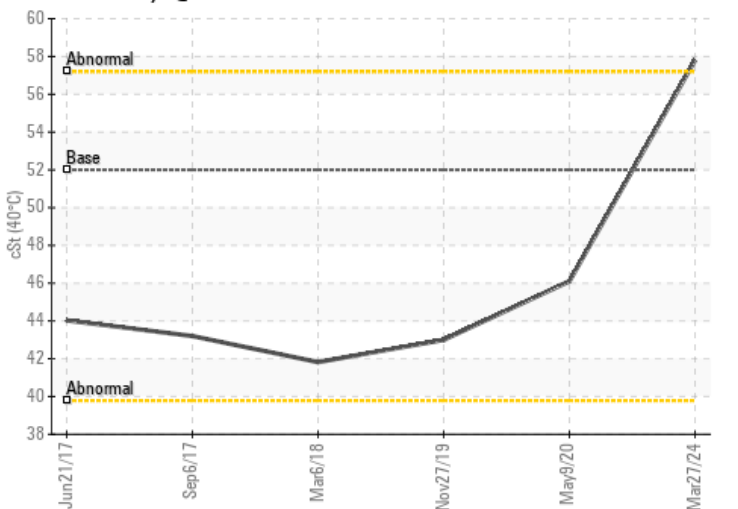
Ferrous Alloys



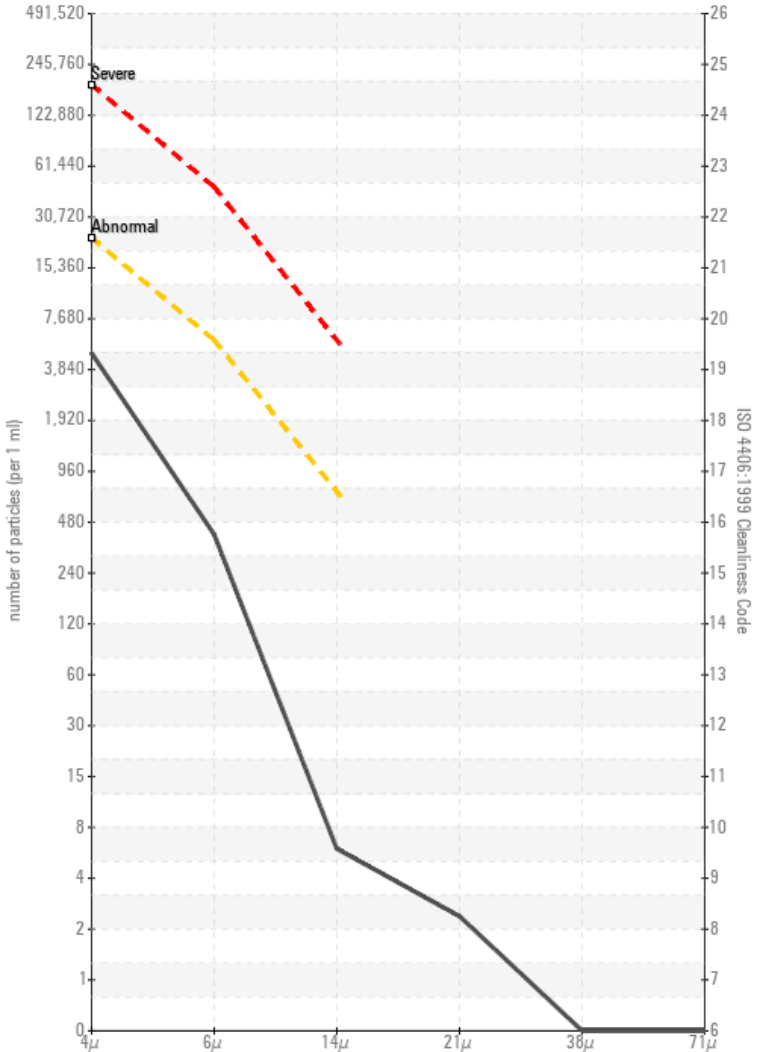
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

