

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L586 023615-461 - Hydraulic System

Sample No: LH0267668

Oil Type: TRACTOR HYDRAULIC



#### SAMPLE INFORMATION

Sample Number	LH0267668	LH0200111	LH0200151	LHMC88232
Sample Date	11 Jan 2024	28 Apr 2022	24 Nov 2021	13 May 2014
Machine Hours	15868	15224	14552	810
Oil Hours	0	0	2000	0
Oil Changed	Not Changd	N/A	Not Changd	N/A
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

**MIDDLE RIVER MARINE**  
 1771 SOUTH TORRENCE AVE  
 CHICAGO, IL  
 US 60617  
 Contact: Scott Molitor  
 scottmolitor@gomiddleriver.com  
 T:  
 F:



#### OIL CONDITION

Visc @ 40°C	cSt	45.1	44.9	44.4	56.18
Acid Number (AN)	mg KOH/g	0.44	0.42	0.329	0.603



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		16276	78077	3430	373
Particles >6µm		861	3735	99	203
Particles >14µm		27	50	6	34
ISO 4406:1999 (c)		21/17/12	23/19/13	19/14/10	16/15/12
Silicon	ppm	1	1	<1	2
Sodium	ppm	5	6	3	<1
Potassium	ppm	0	1	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.



#### WEAR METALS

Iron	ppm	6	10	5	30
Copper	ppm	2	2	3	6
Lead	ppm	0	<1	<1	7
Tin	ppm	0	0	0	0
Aluminum	ppm	0	<1	0	<1
Chromium	ppm	<1	1	1	<1
Molybdenum	ppm	<1	2	<1	0
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

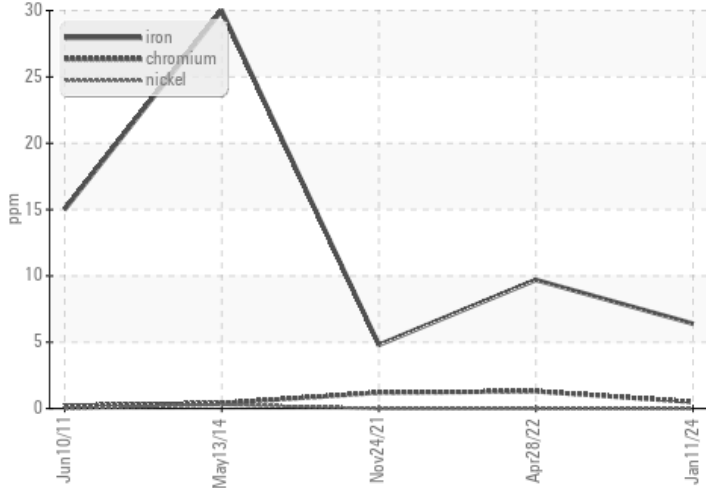
Calcium	ppm	326	75	59	373
Magnesium	ppm	3	10	2	0
Zinc	ppm	479	407	445	458
Phosphorus	ppm	393	321	376	352
Barium	ppm	0	0	0	0
Boron	ppm	6	3	0	<1

Depot: MIDCHILL  
 Unique No: 10870494  
 Signed: Wes Davis  
 Report Date: 08 Feb 2024

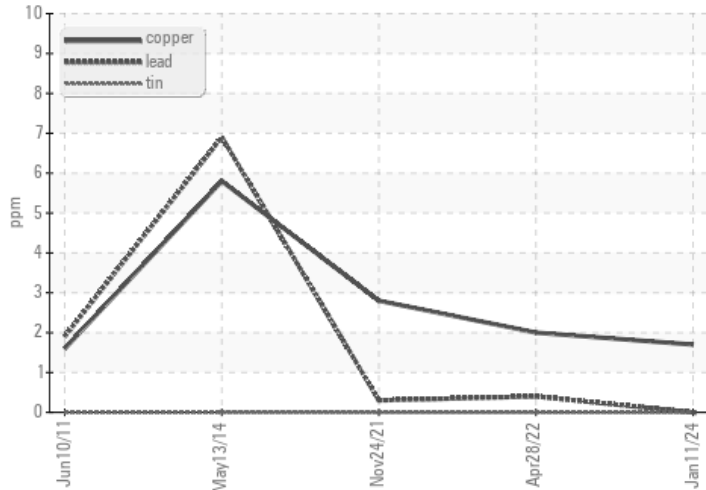


### GRAPHS

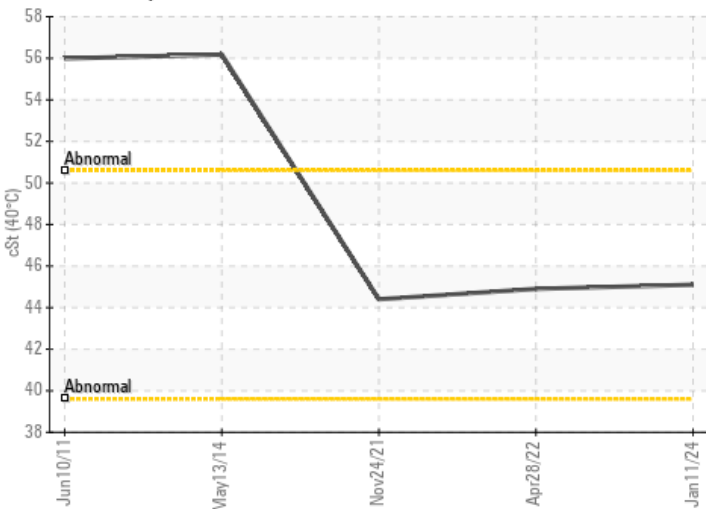
#### Ferrous Alloys



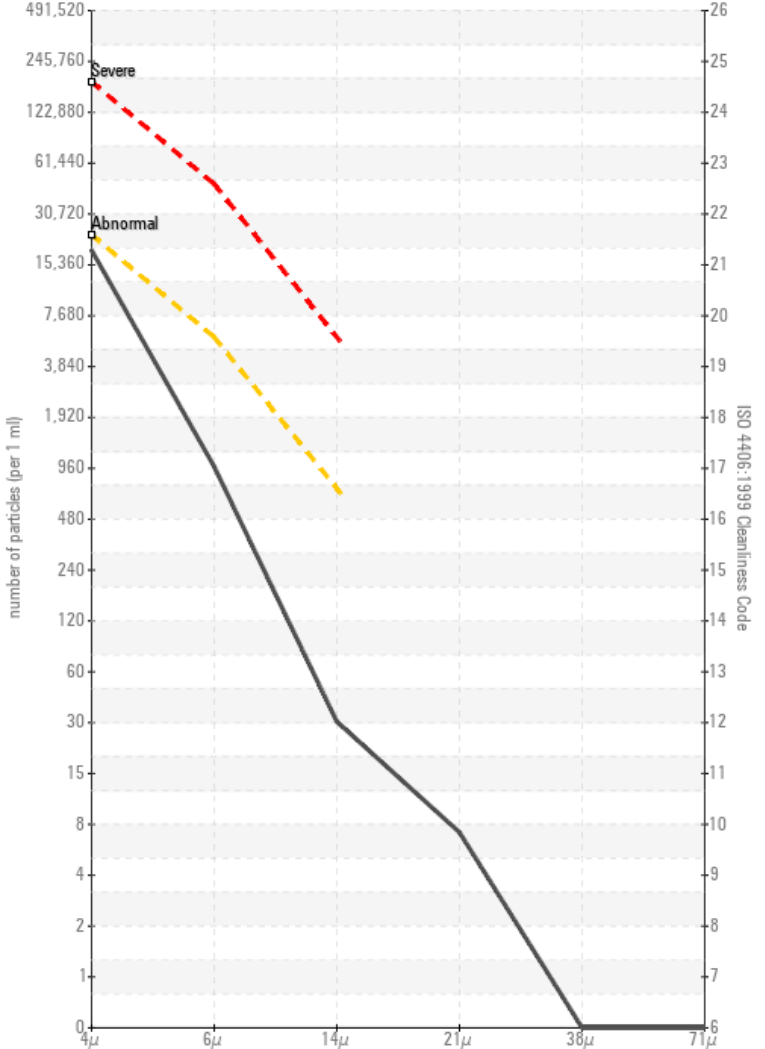
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count



#### Acid Number

