

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50 1216-116574 - Front Right Wheel Hub

Sample No: LH0272123

Oil Type: LIEBHERR 80W90



#### SAMPLE INFORMATION

Sample Number	LH0272123	LH0272161	LH0171124	LH0171115
Sample Date	29 Jan 2024	28 Dec 2023	29 Aug 2023	27 Apr 2023
Machine Hours	20424	19776	17910	16762
Oil Hours	648	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	SEVERE	SEVERE	SEVERE	ABNORMAL

#### BOISE WHITE PAPER

3RD AVE AND HWY 11, 400 2ND ST  
INTERNATIONAL FALLS, MN  
US 56649  
Contact: GARY MANN  
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T:  
F: (218)285-5860



#### OIL CONDITION

Visc @ 40°C	cSt	109	135	186	148



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	34	43	63	25
Sodium	ppm	6	5	9	7
Potassium	ppm	2	3	4	3



#### WEAR METALS

Iron	ppm	827	1716	1546	698
Copper	ppm	57	115	123	52
Lead	ppm	<1	<1	1	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	5	6	14	8
Chromium	ppm	4	7	4	4
Molybdenum	ppm	2	2	<1	<1
Nickel	ppm	1	2	1	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	8	15	17	9
Vanadium	ppm	<1	0	<1	<1



#### ADDITIVES

Calcium	ppm	0	77	10	14
Magnesium	ppm	12	12	<1	<1
Zinc	ppm	89	130	101	73
Phosphorus	ppm	734	668	397	1829
Barium	ppm	0	0	0	0
Boron	ppm	10	11	1	87

#### Diagnosis

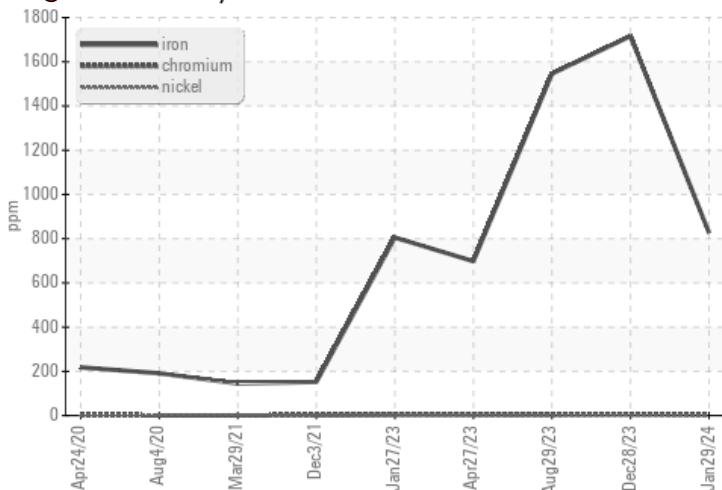
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. High concentration of visible metal present. Gear wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: BOIINT  
Unique No: 10861455  
Signed: Sean Felton  
Report Date: 06 Feb 2024

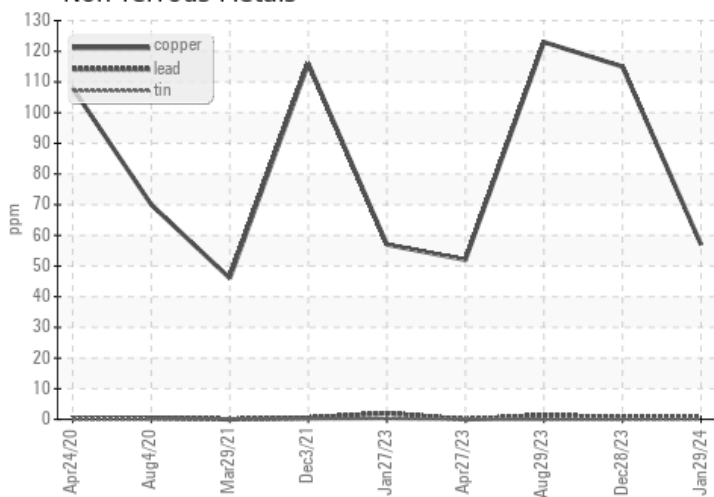


### GRAPHS

#### ● Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

