

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L538 1559-59801 - Rear Left Wheel Hub

Sample No: LH0209850

Oil Type: GEAR OIL SAE 80W90



#### SAMPLE INFORMATION

Sample Number	LH0209850	LH0254770	LH05774533	LH0209837
Sample Date	28 Feb 2024	03 May 2023	21 Feb 2023	01 Mar 2022
Machine Hours	3009	2250	0	966
Oil Hours	0	250	2003	0
Oil Changed	Not Changd	Changed	Not Changd	Changed
Sample Status	ABNORMAL	NORMAL	SEVERE	NORMAL

#### DIEHL AND NUEMAIER

5466 NORWAY GROVE SCHOOL RD  
DE FOREST, WI  
US 53532  
Contact: ELLIOT DIEHL  
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#### OIL CONDITION

Visc @ 40°C	cSt	165	165	233	178
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#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	3	2	8	5
Sodium	ppm	0	0	2	6
Potassium	ppm	2	1	<1	<1



#### WEAR METALS

Iron	ppm	599	411	1335	190
Copper	ppm	1	<1	<1	<1
Lead	ppm	0	<1	<1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	3	0	7	0
Chromium	ppm	5	3	12	<1
Molybdenum	ppm	<1	<1	<1	0
Nickel	ppm	1	1	3	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	5	3	14	1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	23	20	27	35
Magnesium	ppm	<1	<1	4	<1
Zinc	ppm	22	19	41	0
Phosphorus	ppm	1355	1225	2153	2579
Barium	ppm	<1	0	0	0
Boron	ppm	165	157	0	<1

#### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. Gear wear is indicated. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: DIEDEF  
Unique No: 10913220  
Signed: Jonathan Hester  
Report Date: 08 Mar 2024



### GRAPHS

