

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R946 046853-1491 - Right Final Drive

Sample No: LH0258286

Oil Type: LIEBHERR HYPOID 85W-140 EP



#### SAMPLE INFORMATION

Sample Number	<b>LH0258286</b>	LH0229881	LH0220893	LH0199808
Sample Date	<b>31 Jul 2023</b>	06 Oct 2022	25 May 2022	24 Sep 2021
Machine Hours	<b>4055</b>	2811	2271	1745
Oil Hours	<b>1244</b>	2311	0	769
Oil Changed	<b>Changed</b>	Changed	Not Changd	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

#### ACECO

10119 RESIDENCY ROAD  
MANASSAS, VA  
US 20110  
Contact: RON BROCK



#### OIL CONDITION

Visc @ 40°C	cSt	<b>368</b>	360	362	357
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T: (703)392-0111  
F: (703)331-5604



#### CONTAMINATION

Silicon	ppm	<b>17</b>	49	64	35
Sodium	ppm	<b>&lt;1</b>	3	4	2
Potassium	ppm	<b>&lt;1</b>	<1	2	0

#### 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 condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	<b>146</b>	275	235	102
Copper	ppm	<b>0</b>	<1	<1	<1
Lead	ppm	<b>0</b>	0	<1	0
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>2</b>	14	15	8
Chromium	ppm	<b>1</b>	3	3	1
Molybdenum	ppm	<b>0</b>	0	<1	0
Nickel	ppm	<b>&lt;1</b>	1	1	1
Titanium	ppm	<b>0</b>	<1	1	<1
Silver	ppm	<b>0</b>	<1	<1	<1
Manganese	ppm	<b>1</b>	3	2	1
Vanadium	ppm	<b>0</b>	<1	0	0



#### ADDITIVES

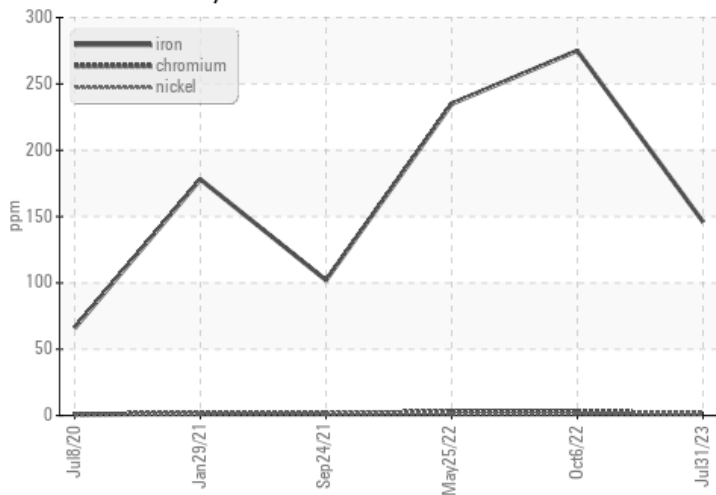
Calcium	ppm	<b>10</b>	6	32	10
Magnesium	ppm	<b>5</b>	3	4	2
Zinc	ppm	<b>10</b>	7	14	5
Phosphorus	ppm	<b>1118</b>	1049	1251	907
Barium	ppm	<b>7</b>	0	0	<1
Boron	ppm	<b>0</b>	0	3	19

Depot: ACEMAN  
Unique No: 10635929  
Signed: Don Baldrige  
Report Date: 10 Sep 2023

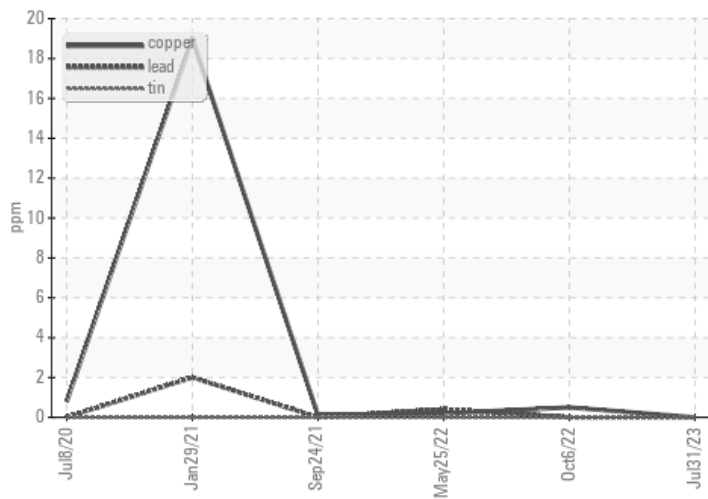


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

