

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R946 035496-1150 - Right Final Drive

Sample No: LH0254592

Oil Type: LIEBHERR GEAR BASIC 90 LS



#### SAMPLE INFORMATION

Sample Number	LH0254592	LH0243559	LHMC73885	---
Sample Date	08 Aug 2023	07 Apr 2023	20 Nov 2017	---
Machine Hours	18090	13412	500	---
Oil Hours	0	1000	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	SEVERE	ABNORMAL	---

**FINKBINER EQUIPMENT CO.**  
 15 W 400 N FRONTAGE RD  
 BURR RIDGE, IL  
 US 60527  
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 T: (815)546-8991  
 F: (630)654-3792



#### OIL CONDITION

Visc @ 40°C	cSt	171	312	143.2	---
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#### CONTAMINATION

Water	%	---	0.728	---	---
Silicon	ppm	219	384	262	---
Sodium	ppm	8	14	11	---
Potassium	ppm	19	18	29	---



#### WEAR METALS

Iron	ppm	428	697	389	---
Copper	ppm	2	108	2	---
Lead	ppm	0	0	1	---
Tin	ppm	0	6	0	---
Aluminum	ppm	48	69	57	---
Chromium	ppm	5	33	5	---
Molybdenum	ppm	<1	3	<1	---
Nickel	ppm	5	4	2	---
Titanium	ppm	2	4	4	---
Silver	ppm	0	0	0	---
Manganese	ppm	5	26	9	---
Vanadium	ppm	<1	0	0	---



#### ADDITIVES

Calcium	ppm	204	219	278	---
Magnesium	ppm	39	95	97	---
Zinc	ppm	58	24	108	---
Phosphorus	ppm	2371	155	1369	---
Barium	ppm	0	0	5	---
Boron	ppm	<1	10	2	---

#### Diagnosis

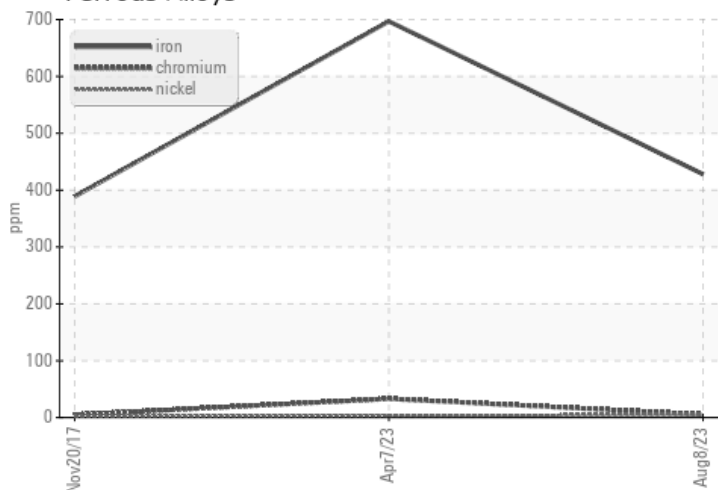
We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

Depot: LEC0033  
 Unique No: 10615836  
 Signed: Sean Felton  
 Report Date: 23 Aug 2023

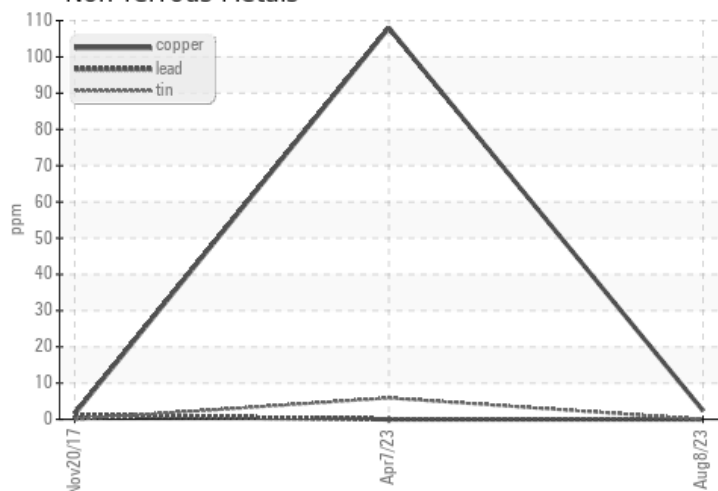


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

