

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH110 1227-155752 - Rear Right Wheel Hub

Sample No: LH0267273

Oil Type: GEAR OIL SAE 80W90



**KINDER MORGAN**

4301 IVERSON

TRINITY, AL

US 35601

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#### Sample Information

Sample Number	LH0267273	LH0267541	LH0280590	LH0280590
Sample Date	10 Jun 2024	20 May 2024	18 Apr 2024	19 Mar 2024
Machine Hours	2998	2578	1980	1544
Oil Hours	967	547	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	ATTENTION	ATTENTION	ATTENTION	ATTENTION



#### Oil Condition

Visc @ 40°C	cSt	77.2	80.9	96.4	99.6



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	5	5	5	4
Sodium	ppm	0	2	<1	<1
Potassium	ppm	1	1	0	1



#### Wear Metals

Iron	ppm	52	38	51	39
Copper	ppm	13	9	14	10
Lead	ppm	0	<1	0	0
Tin	ppm	0	0	0	2
Aluminum	ppm	2	1	<1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	3	5	1	2
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	1	<1
Vanadium	ppm	0	<1	0	<1



#### Additives

Calcium	ppm	229	233	183	177
Magnesium	ppm	46	44	4	4
Zinc	ppm	187	171	105	93
Phosphorus	ppm	419	407	481	469
Barium	ppm	0	0	0	0
Boron	ppm	9	10	0	2

#### Diagnosis

The oil change at the time of sampling has been noted. 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 oil viscosity is lower than normal. Confirm oil type.

Depot: KINTRI

Unique No: 11089039

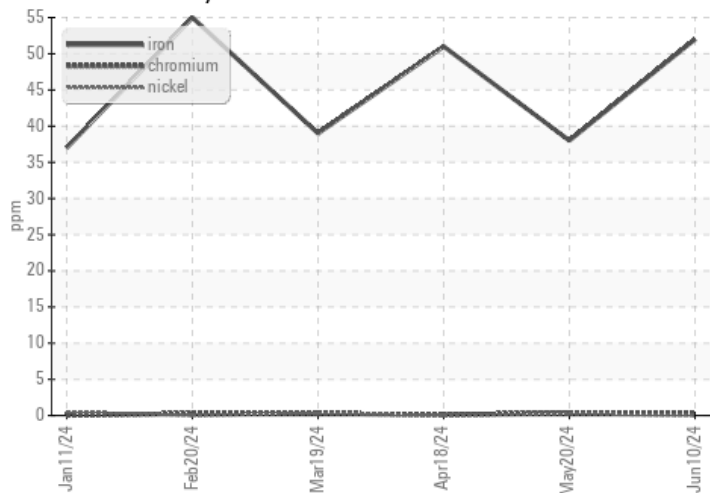
Signed: Don Baldrige

Report Date: 23 Jun 2024

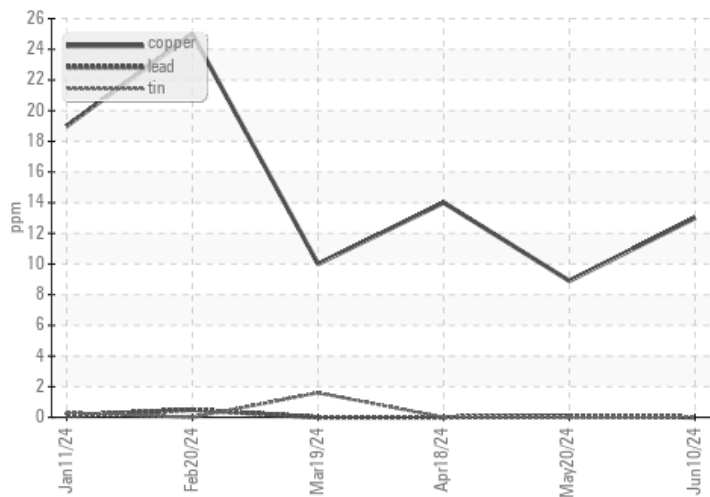


### Graphs

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

