



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**LIEBHERR LH110 155976-1227**  
Component  
**Transmission (Manual)**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0267251	LH0267556	---
Sample Date		Client Info		08 Jun 2024	12 May 2024	---
Machine Age	hrs	Client Info		2430	1951	---
Oil Age	hrs	Client Info		479	956	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ATTENTION	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	8	10	---
Chromium	ppm	ASTM D5185m	>5	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>7	0	<1	---
Aluminum	ppm	ASTM D5185m	>25	2	<1	---
Lead	ppm	ASTM D5185m	>45	0	0	---
Copper	ppm	ASTM D5185m	>225	<1	1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

### CONTAMINATION

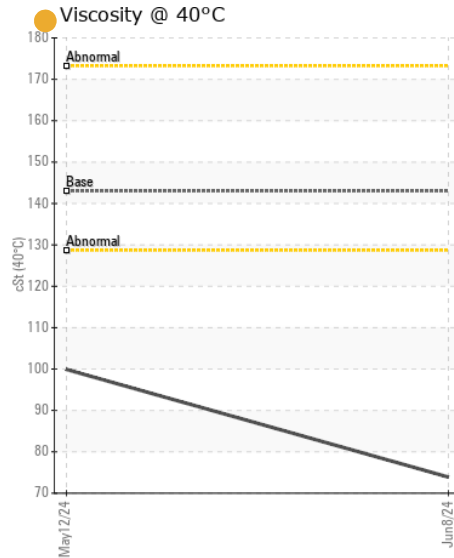
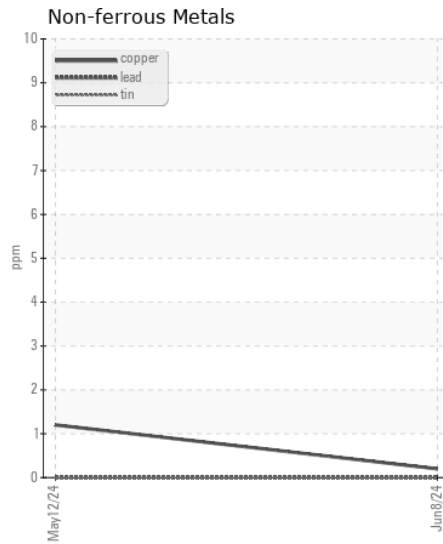
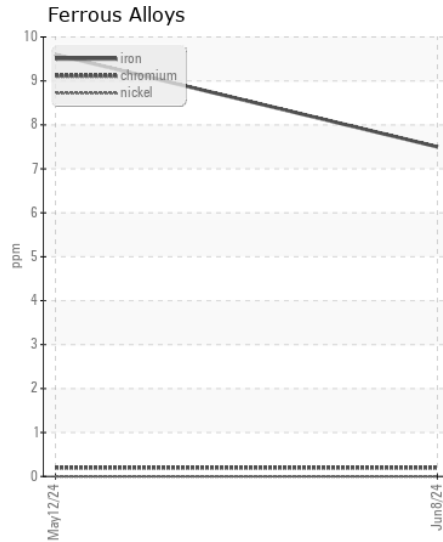
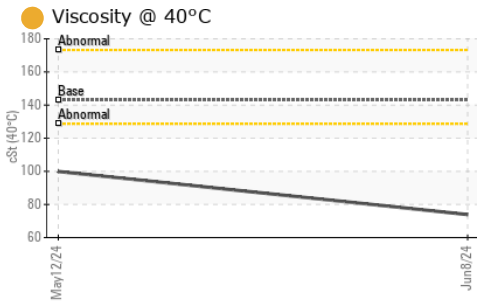
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>125	5	2	---
Potassium	ppm	ASTM D5185m	>20	1	2	---
Water		WC Method	>0.1	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	▲ MODER	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

### FLUID CONDITION

The fluid viscosity is lower than normal. Confirm oil type.

Sodium	ppm	ASTM D5185m	>170	0	1	---
Boron	ppm	ASTM D5185m	400	8	3	---
Barium	ppm	ASTM D5185m	200	0	0	---
Molybdenum	ppm	ASTM D5185m	12	4	3	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m	12	49	14	---
Calcium	ppm	ASTM D5185m	150	299	229	---
Phosphorus	ppm	ASTM D5185m	1650	572	629	---
Zinc	ppm	ASTM D5185m	125	223	105	---
Sulfur	ppm	ASTM D5185m	22500	13429	14319	---
Visc @ 40°C	cSt	ASTM D445	143	73.9	99.9	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0267251  
**Lab Number** : 06216214  
**Unique Number** : 11089078  
**Test Package** : CONST

**Received** : 20 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 23 Jun 2024 - Don Baldrige

**KINDER MORGAN**  
 4301 IVERSON  
 TRINITY, AL  
 US 35601

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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