



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH40M MH-12 (S/N 142301)**  
Component  
**Rear Axle**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (22 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0272196</b>	LH0258589	---
Sample Date		Client Info		<b>01 Feb 2024</b>	30 Oct 2023	---
Machine Age	hrs	Client Info		<b>4277</b>	2954	---
Oil Age	hrs	Client Info		<b>1323</b>	1195	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>60</b>	30	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>50	<b>8</b>	6	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

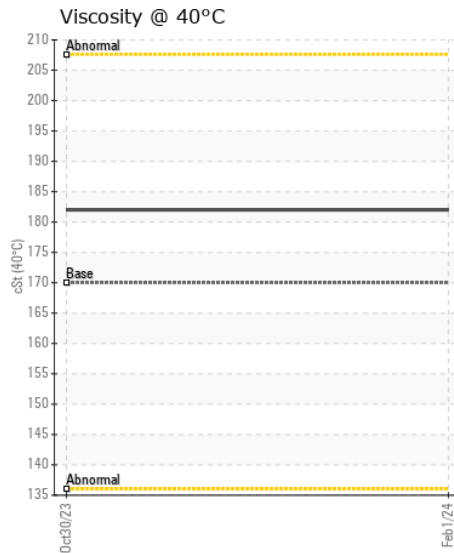
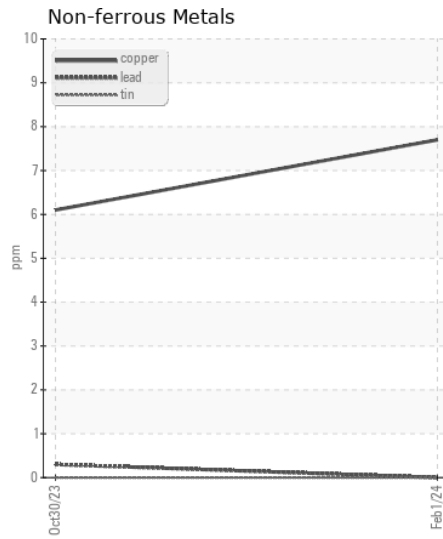
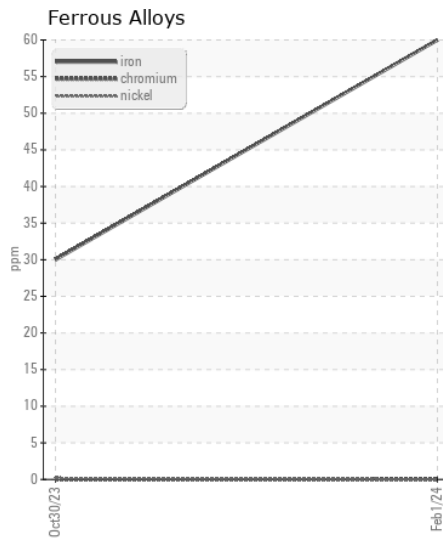
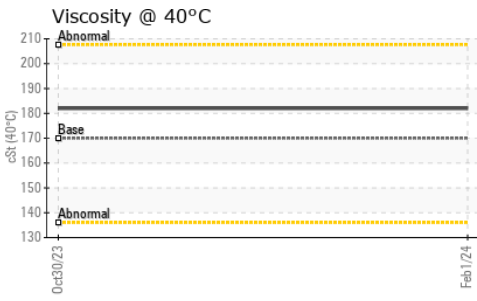
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>5</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	5	---
Boron	ppm	ASTM D5185m	0	<b>1</b>	1	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m	0	<b>1</b>	1	---
Magnesium	ppm	ASTM D5185m	<1	<b>0</b>	1	---
Calcium	ppm	ASTM D5185m	<1	<b>82</b>	77	---
Phosphorus	ppm	ASTM D5185m	2143	<b>2165</b>	2249	---
Zinc	ppm	ASTM D5185m	<1	<b>25</b>	19	---
Sulfur	ppm	ASTM D5185m	23468	<b>26535</b>	27350	---
Visc @ 40°C	cSt	ASTM D445	170	<b>182</b>	182	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0272196  
**Lab Number** : 06086331  
**Unique Number** : 10873776  
**Test Package** : CONST  
**Received** : 12 Feb 2024  
**Tested** : 13 Feb 2024  
**Diagnosed** : 13 Feb 2024 - Wes Davis

**JR VINAGRO**  
 2208 PLAINFIELD PIKE  
 JOHNSTON, RI  
 US 02919  
 Contact: Service Manager

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)

T:  
F: