



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 1216-108671**  
Component  
**Front Differential**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0268413</b>	LH0258755	LH0263996
Sample Date		Client Info		<b>14 Jun 2024</b>	23 Feb 2024	14 Dec 2023
Machine Age	hrs	Client Info		<b>21235</b>	20036	19125
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>&lt;1</b>	0	0
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>7	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>135	<b>11</b>	0	<1
Tin	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

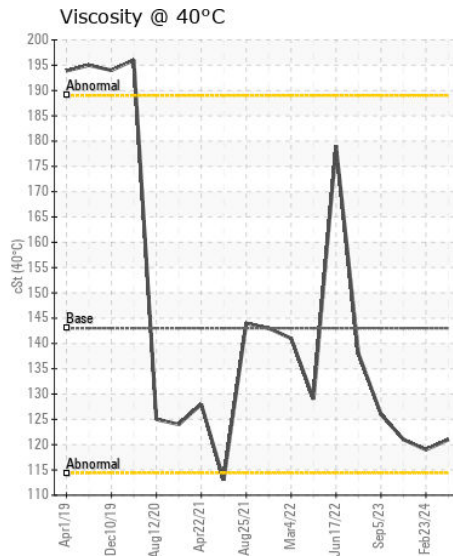
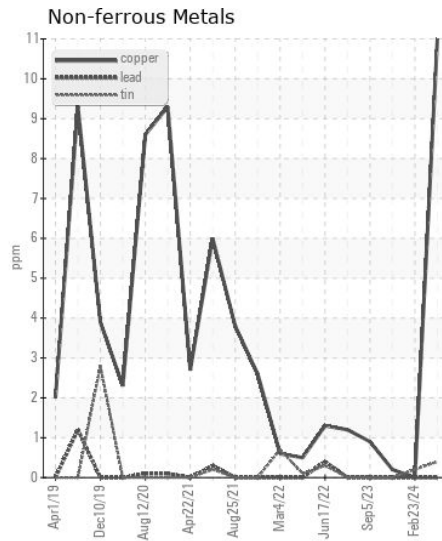
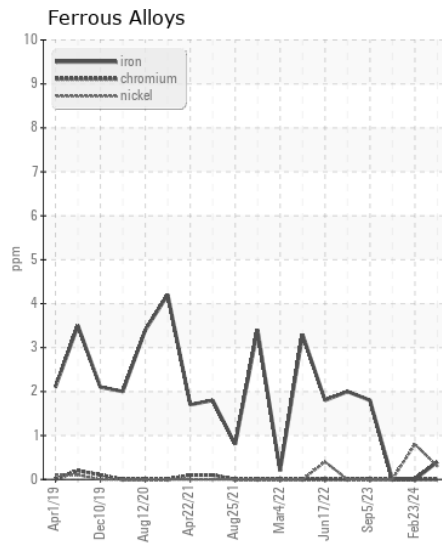
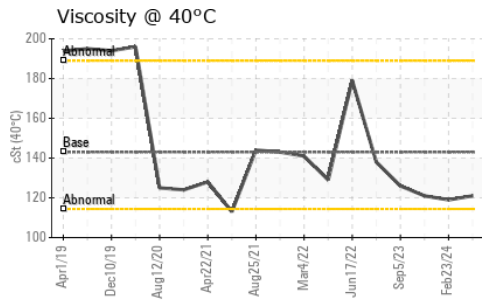
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	<b>2</b>	2	<1
Boron	ppm	ASTM D5185m	400	<b>15</b>	0	<1
Barium	ppm	ASTM D5185m	200	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	12	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	12	<b>2</b>	5	13
Calcium	ppm	ASTM D5185m	150	<b>19</b>	35	43
Phosphorus	ppm	ASTM D5185m	1650	<b>966</b>	824	843
Zinc	ppm	ASTM D5185m	125	<b>18</b>	15	22
Sulfur	ppm	ASTM D5185m	22500	<b>26382</b>	20970	19820
Visc @ 40°C	cSt	ASTM D445	143	<b>121</b>	119	121



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0268413  
**Lab Number** : 06218664  
**Unique Number** : 11096861  
**Test Package** : CONST

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Wes Davis

**AMERICAN STATE EQUIPMENT CO.**  
 2400 NORTH 14TH AVENUE  
 WAUSAU, WI  
 US 54401  
 Contact: CHRIS BARTNIK  
 cbartnik@amstate.com  
 T: (715)675-6900  
 F: (715)675-9748

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)