



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH30M 121854-1253**  
Component  
**Front Left Wheel Hub**  
Fluid  
**CHEVRON DELO GEAR ESI OIL 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0267091</b>	LH0272745	LH0264395
Sample Date		Client Info		<b>17 May 2024</b>	02 Jan 2024	04 Aug 2023
Machine Age	hrs	Client Info		<b>8113</b>	6976	6007
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	>450	<b>73</b>	55	104
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	1
Lead	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	2	5
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

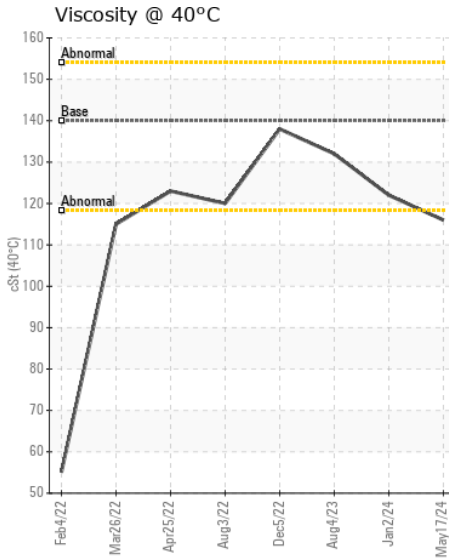
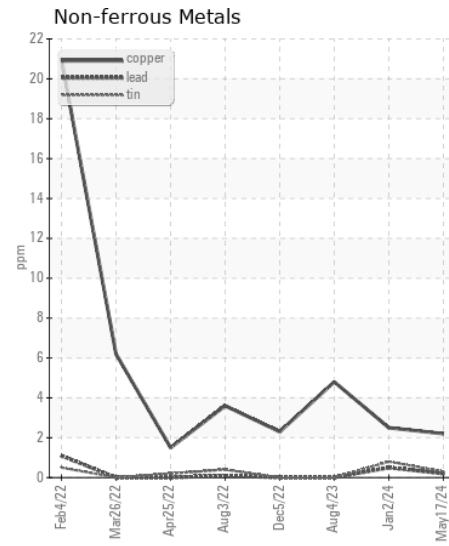
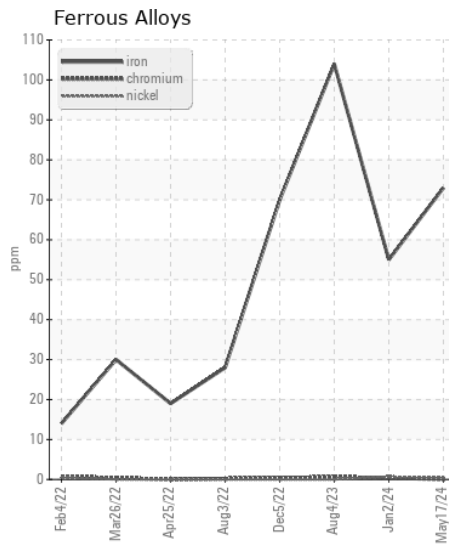
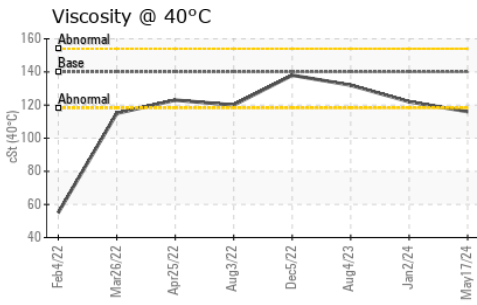
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	<b>4</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	4
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		<b>5</b>	<1	8
Boron	ppm	ASTM D5185m	15	<b>7</b>	2	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	1	<1
Manganese	ppm	ASTM D5185m		<b>1</b>	1	1
Magnesium	ppm	ASTM D5185m	0	<b>4</b>	5	10
Calcium	ppm	ASTM D5185m	5	<b>42</b>	40	66
Phosphorus	ppm	ASTM D5185m	600	<b>906</b>	786	1047
Zinc	ppm	ASTM D5185m	0	<b>16</b>	0	7
Sulfur	ppm	ASTM D5185m	22000	<b>25645</b>	26789	36730
Visc @ 40°C	cSt	ASTM D445	140	<b>116</b>	122	132



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0267091  
**Lab Number** : 06193139  
**Unique Number** : 11049891  
**Test Package** : CONST

**Received** : 28 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Sean Felton

**AMERICAN STATE EQUIPMENT CO.**  
 2400 NORTH 14TH AVENUE  
 WAUSAU, WI  
 US 54401

Contact: CHRIS BARTNIK  
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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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