



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH60M 146313-1217**  
Component  
**Rear Right Wheel Hub**  
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		<b>LH0278931</b>	LH0274554	LH0247193
Sample Date		Client Info		<b>21 Jan 2024</b>	05 Sep 2023	14 Jun 2023
Machine Age	hrs	Client Info		<b>2083</b>	1114	530
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>	N/A	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 D5185(m)	>650	<b>29</b>	54	34
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>60	<b>15</b>	9	15
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	LIGHT	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

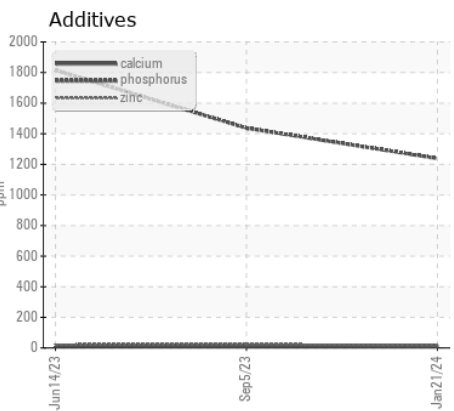
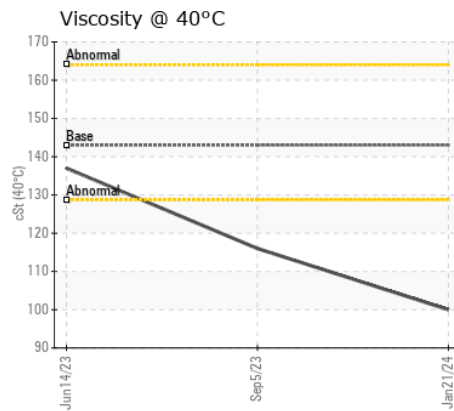
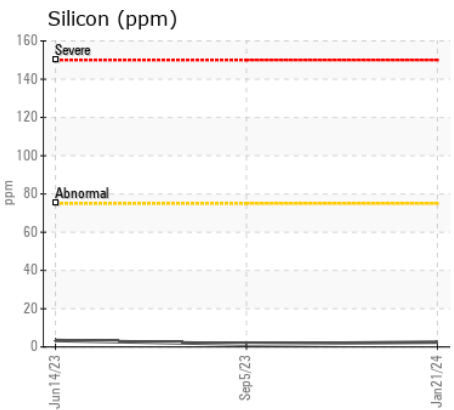
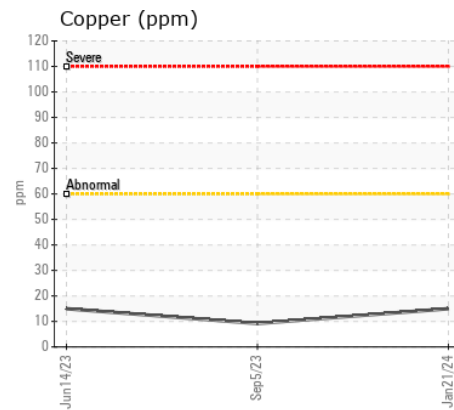
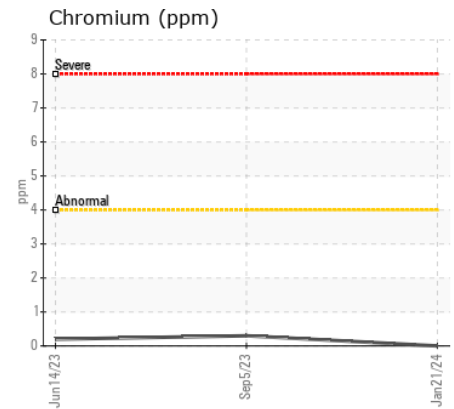
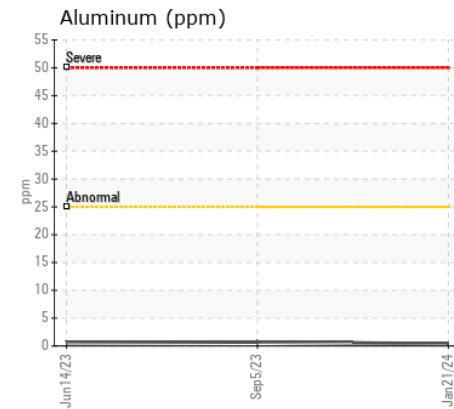
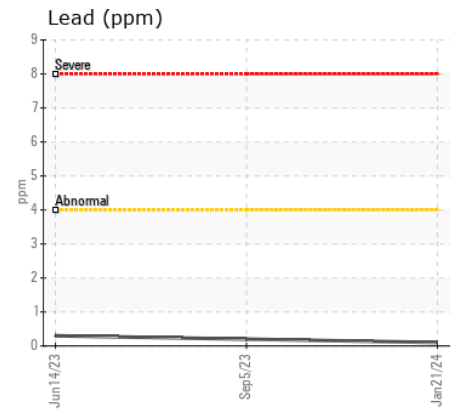
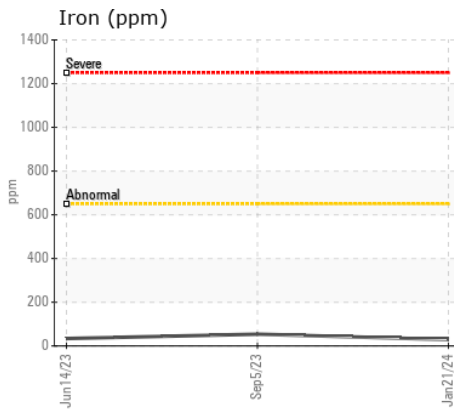
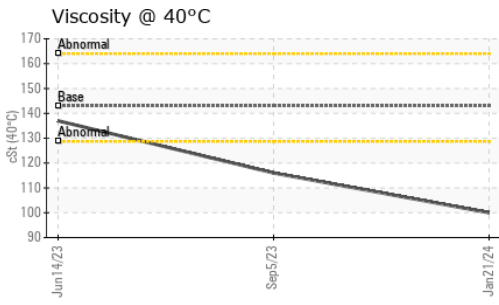
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	<b>2</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	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

Viscosity of sample indicates oil is within SAE 75W90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>170	<b>&lt;1</b>	3	5
Boron	ppm	ASTM D5185(m)	400	<b>310</b>	203	129
Barium	ppm	ASTM D5185(m)	200	<b>0</b>	31	18
Molybdenum	ppm	ASTM D5185(m)	12	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	1	2
Magnesium	ppm	ASTM D5185(m)	12	<b>1</b>	2	3
Calcium	ppm	ASTM D5185(m)	150	<b>10</b>	12	14
Phosphorus	ppm	ASTM D5185(m)	1650	<b>1238</b>	1437	1815
Zinc	ppm	ASTM D5185(m)	125	<b>15</b>	24	21
Sulfur	ppm	ASTM D5185(m)	22500	<b>21269</b>	23322	30908
Visc @ 40°C	cSt	ASTM D7279(m)	143	<b>100</b>	116	137



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0278931 **Received** : 22 Jan 2024  
**Lab Number** : 02610392 **Diagnosed** : 23 Jan 2024  
**Unique Number** : 5711478 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1

**WENTWORTH METAL RECYCLING**  
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 Contact: Jaason  
 jaason@wentworthrecycling.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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F: