



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area  
**(358696)**  
Machine Id  
**LIEBHERR R924LC 050422-1487**  
Component  
**Right Final Drive**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0278866</b>	LH0274650	LH0251716
Sample Date		Client Info		<b>10 Jan 2024</b>	14 Aug 2023	06 Jan 2023
Machine Age	hrs	Client Info		<b>4848</b>	4043	2975
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 D5185(m)	>1525	<b>363</b>	218	403
Chromium	ppm	ASTM D5185(m)	>25	<b>4</b>	3	6
Nickel	ppm	ASTM D5185(m)	>5	<b>2</b>	2	2
Titanium	ppm	ASTM D5185(m)	>8	<b>2</b>	1	3
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>90	<b>70</b>	20	50
Lead	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>85	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

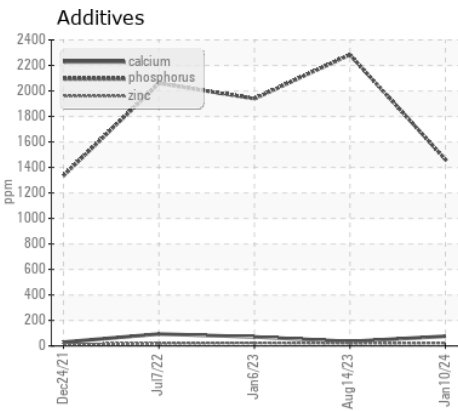
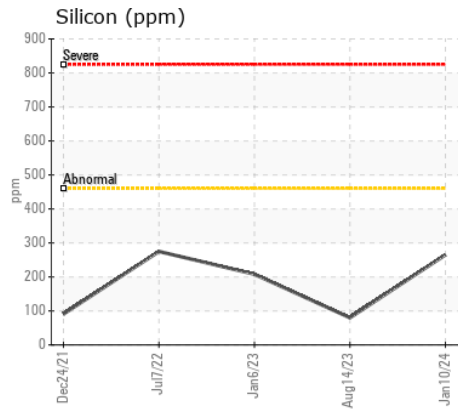
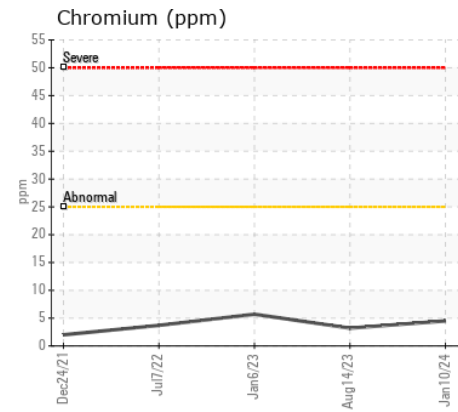
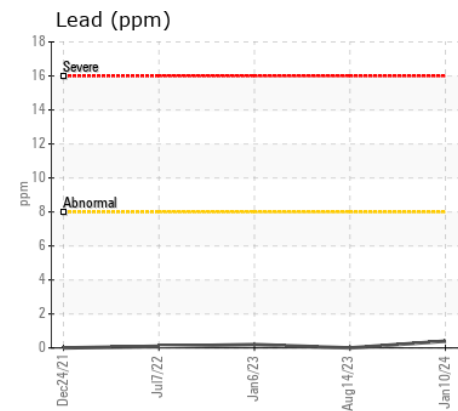
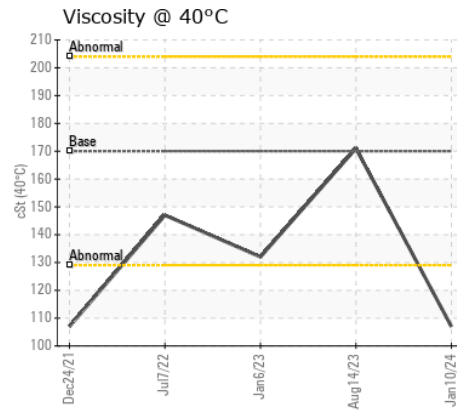
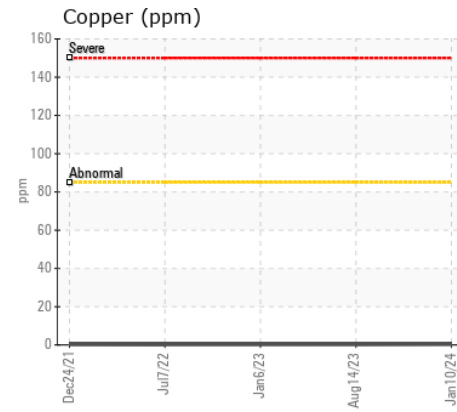
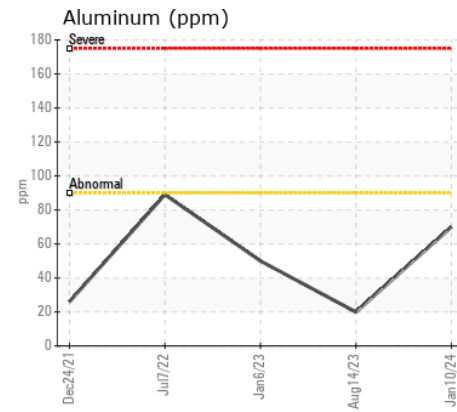
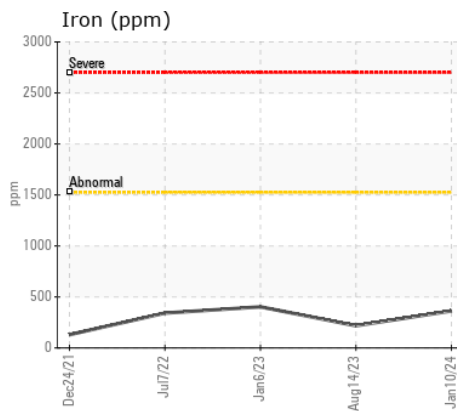
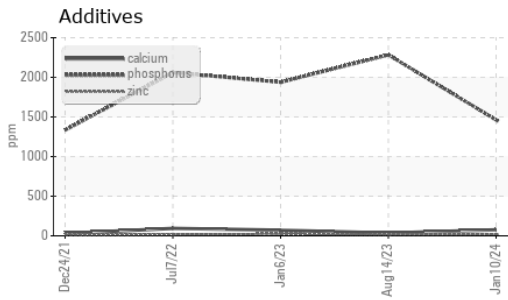
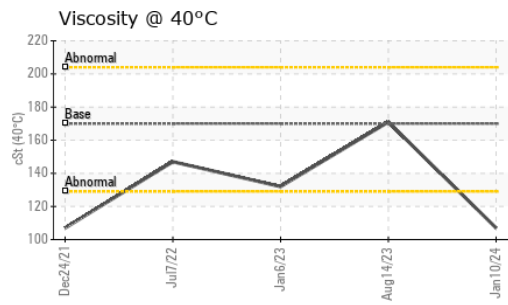
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>460	<b>265</b>	80	208
Potassium	ppm	ASTM D5185(m)	>20	<b>25</b>	8	18
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>LIGHT</b>	VLITE	VLITE
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

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>18</b>	9	17
Boron	ppm	ASTM D5185(m)	0	<b>230</b>	29	123
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185(m)	0	<b>4</b>	2	4
Magnesium	ppm	ASTM D5185(m)	<1	<b>24</b>	10	15
Calcium	ppm	ASTM D5185(m)	<1	<b>76</b>	35	71
Phosphorus	ppm	ASTM D5185(m)	2143	<b>1463</b>	2284	1939
Zinc	ppm	ASTM D5185(m)	<1	<b>21</b>	19	23
Sulfur	ppm	ASTM D5185(m)	23468	<b>22221</b>	25906	29732
Visc @ 40°C	cSt	ASTM D7279(m)	170	<b>107</b>	171	132



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0278866 **Received** : 23 Jan 2024  
**Lab Number** : 02610669 **Diagnosed** : 23 Jan 2024  
**Unique Number** : 5711755 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**SL EXCAVATION INC.**  
 4626 COUNTY ROAD 29  
 ALMONTE, ON  
 CA K0A 1A0  
 Contact: Service Manager

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: