



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 145181-1216**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0286806</b>	LH0277539	LH0274799
Sample Date		Client Info		<b>01 Apr 2024</b>	04 Jan 2024	29 Aug 2023
Machine Age	hrs	Client Info		<b>2092</b>	1614	1043
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>Not Changd</b>	Not Changd	Not Changd
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)	>50	<b>10</b>	8	8
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>10	<b>2</b>	2	1
Tin	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<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

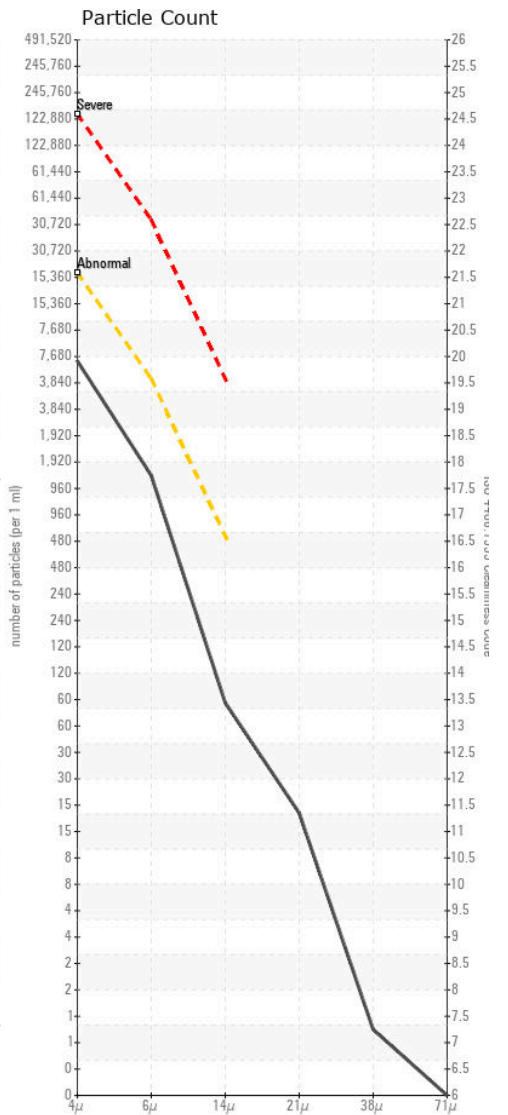
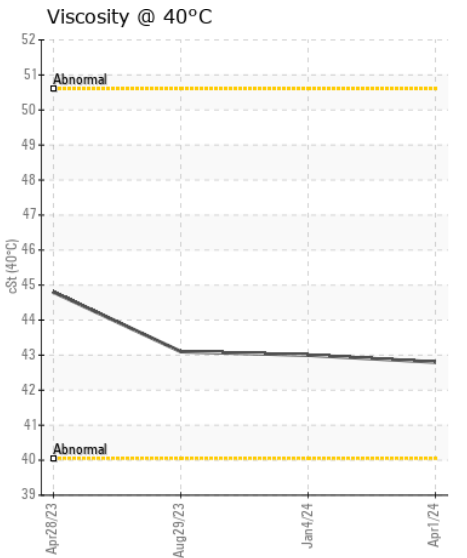
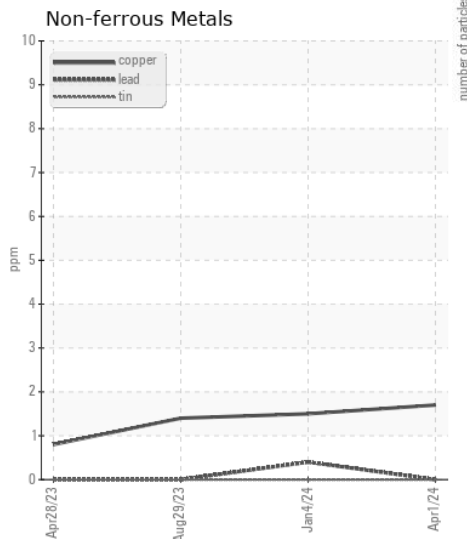
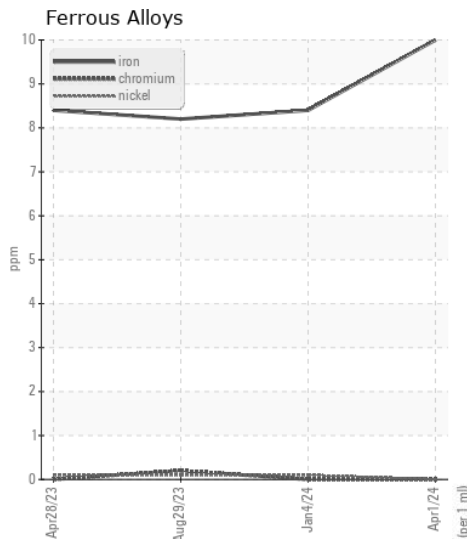
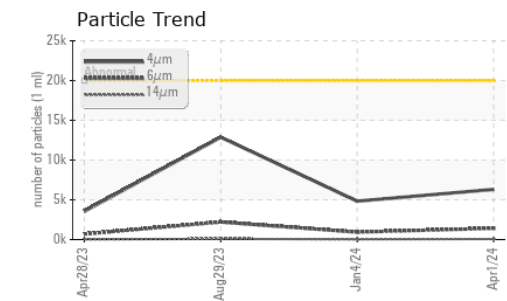
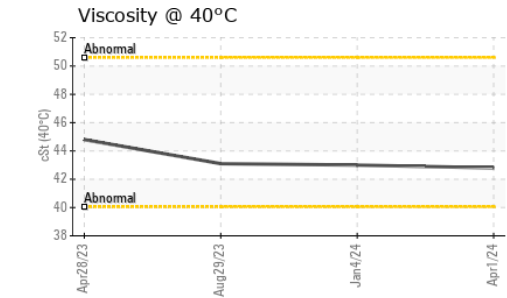
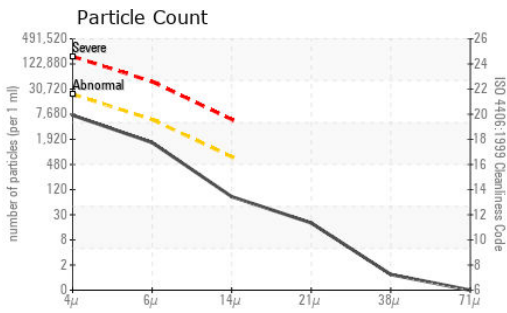
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>17	<b>1</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>6310</b>	4829	12877
Particles >6µm		ASTM D7647	>5000	<b>1409</b>	938	2213
Particles >14µm		ASTM D7647	>640	<b>72</b>	32	87
Particles >21µm		ASTM D7647	>160	<b>17</b>	11	17
Particles >38µm		ASTM D7647	>40	<b>1</b>	2	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/18/13</b>	19/17/12	21/18/14
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</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*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>1</b>	<1	1
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>2</b>	2	3
Calcium	ppm	ASTM D5185(m)		<b>614</b>	622	760
Phosphorus	ppm	ASTM D5185(m)		<b>458</b>	469	519
Zinc	ppm	ASTM D5185(m)		<b>550</b>	546	582
Sulfur	ppm	ASTM D5185(m)		<b>2013</b>	2157	2392
Visc @ 40°C	cSt	ASTM D7279(m)		<b>42.8</b>	43.0	43.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0286806 **Received** : 02 Apr 2024  
**Lab Number** : 02626104 **Tested** : 03 Apr 2024  
**Unique Number** : 5759236 **Diagnosed** : 03 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**METALOGICS INC**  
 70 NORTH QUEEN ST.  
 ETOBICOKE, ON  
 CA M8Z 2C7  
 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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