



# LIEBHERR

## OIL ANALYSIS REPORT

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



Area  
**(358361)**  
Machine Id  
**LIEBHERR LH40M 133820-1215**  
Component  
**Hydraulic System**  
Fluid  
**AW HYDRAULIC OIL ISO 46 (605 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0289607</b>	LH0289647	LH0256536
Sample Date		Client Info		<b>10 Jun 2024</b>	10 Jun 2024	29 Mar 2023
Machine Age	hrs	Client Info		<b>9259</b>	9259	1521
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)	>60	<b>59</b>	32	26
Chromium	ppm	ASTM D5185(m)	>40	<b>3</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
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)	>5	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>15	<b>4</b>	3	2
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
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

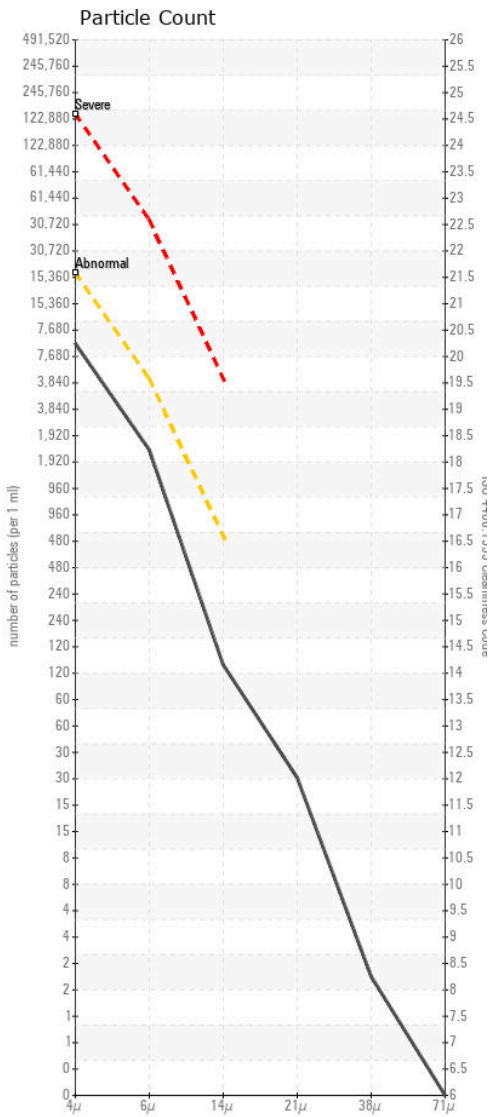
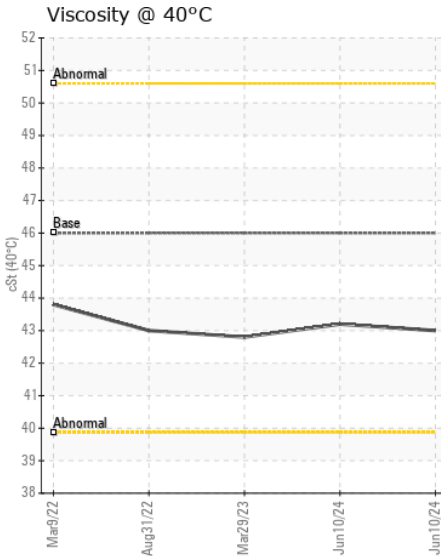
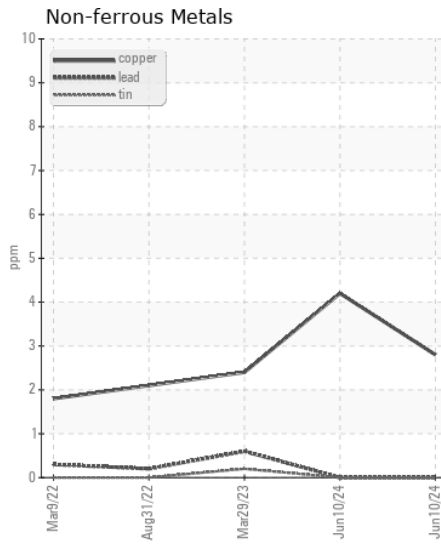
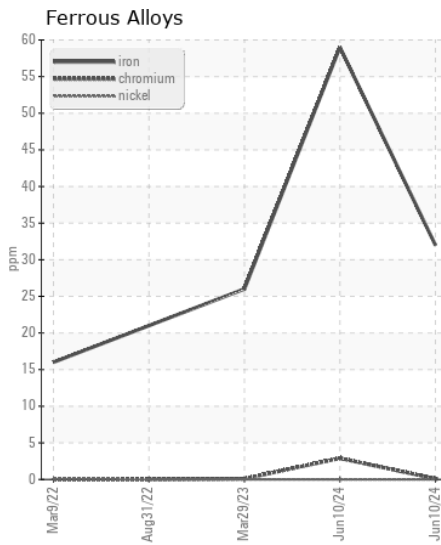
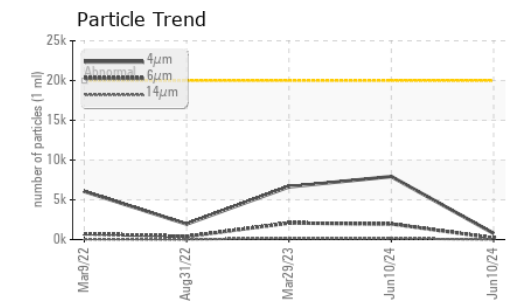
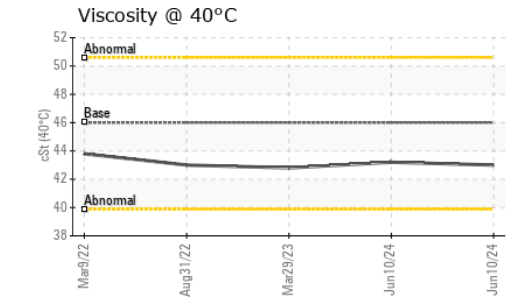
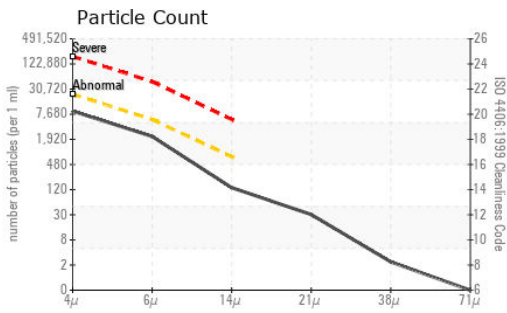
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>7931</b>	770	6637
Particles >6µm		ASTM D7647	>5000	<b>1970</b>	203	2080
Particles >14µm		ASTM D7647	>640	<b>118</b>	17	157
Particles >21µm		ASTM D7647	>160	<b>27</b>	4	33
Particles >38µm		ASTM D7647	>40	<b>2</b>	0	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/18/14</b>	17/15/11	20/18/14
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
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*	>0.1	<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)	5	<b>2</b>	<1	<1
Barium	ppm	ASTM D5185(m)	5	<b>4</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	25	<b>6</b>	3	2
Calcium	ppm	ASTM D5185(m)	200	<b>98</b>	512	705
Phosphorus	ppm	ASTM D5185(m)	300	<b>400</b>	466	543
Zinc	ppm	ASTM D5185(m)	370	<b>489</b>	583	599
Sulfur	ppm	ASTM D5185(m)	2500	<b>1463</b>	2059	2614
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>43.0</b>	43.2	42.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0289607 **Received** : 11 Jun 2024  
**Lab Number** : 02641186 **Tested** : 12 Jun 2024  
**Unique Number** : 5798725 **Diagnosed** : 12 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**METALOGICS INC.**  
 895 COLLINSON RD.  
 DUNDAS, ON  
 CA L9H 5E2  
 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: