



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**RMR-Newport**  
 Machine Id  
**1217-97851 LIEBHERR LH60M 1217-97851**  
 Component  
**Hydraulic System**  
 Fluid  
**{not provided} (--- GAL)**

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

### 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>LH0244699</b>	DJJ0017597	DJJ0016510
Sample Date		Client Info		<b>13 Mar 2024</b>	20 Oct 2023	31 Jan 2023
Machine Age	hrs	Client Info		<b>13914</b>	13117	11593
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>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>6</b>	9	4
Chromium	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	1	0
Lead	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<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

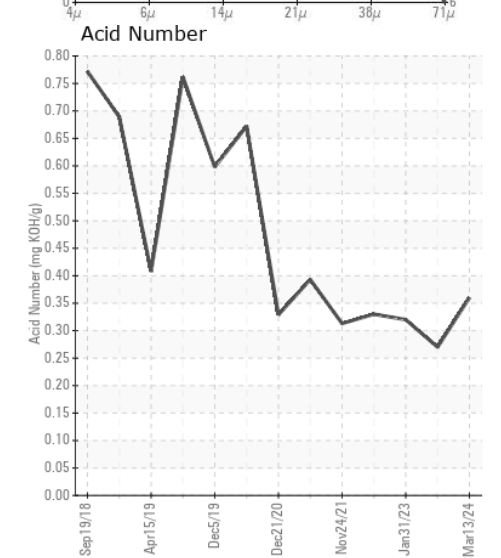
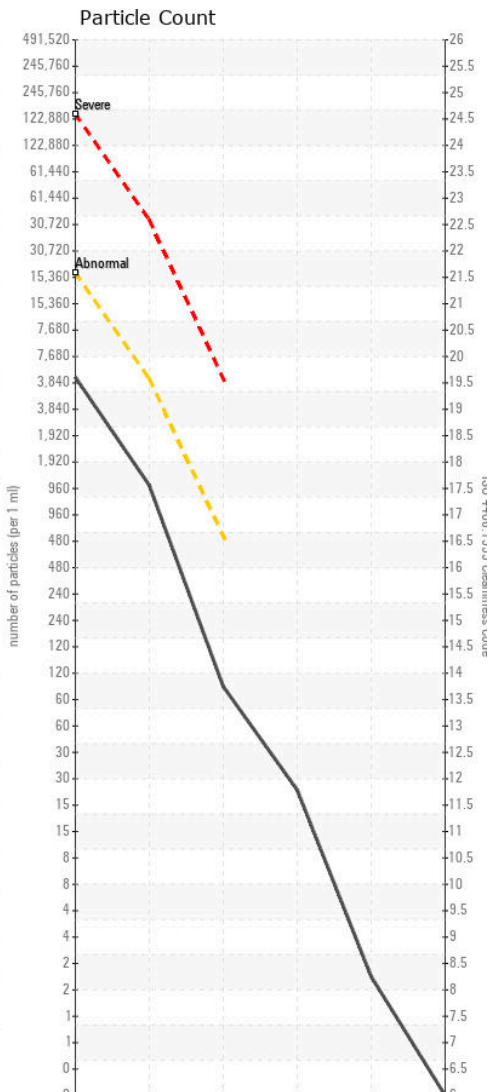
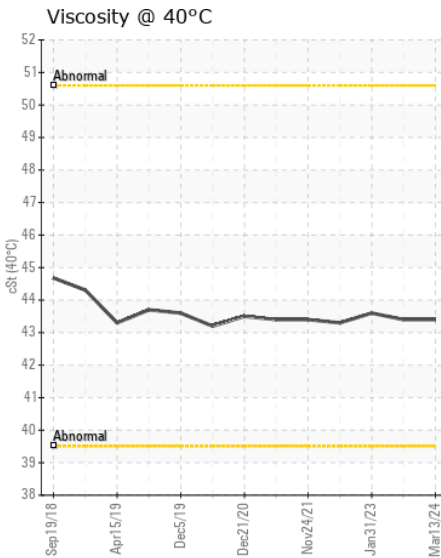
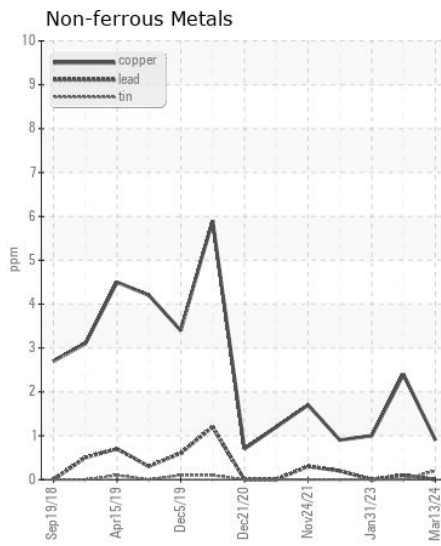
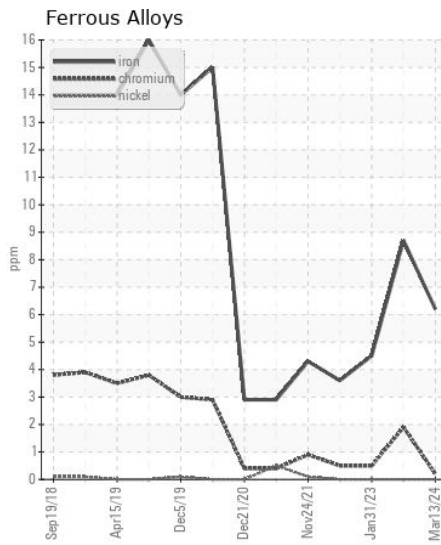
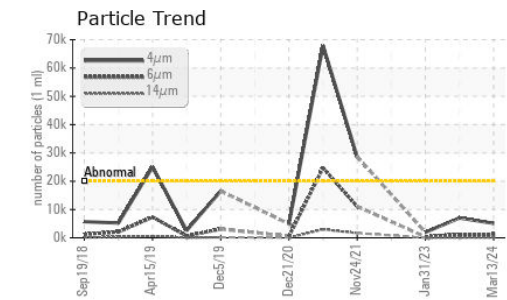
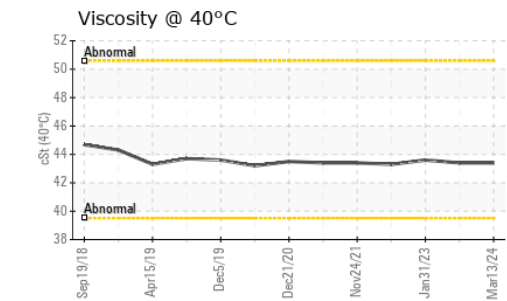
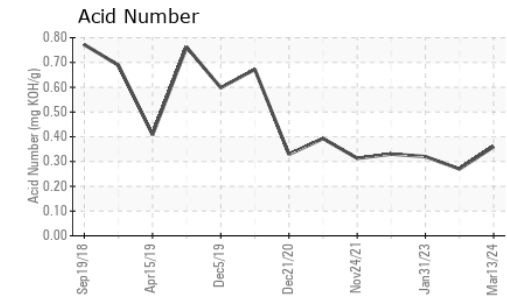
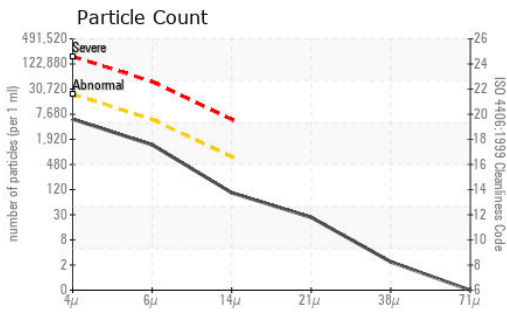
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>5102</b>	7016	1956
Particles >6µm		ASTM D7647	>5000	<b>1239</b>	1194	323
Particles >14µm		ASTM D7647	>640	<b>89</b>	78	11
Particles >21µm		ASTM D7647	>160	<b>23</b>	18	1
Particles >38µm		ASTM D7647	>40	<b>2</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/17/14</b>	20/17/13	18/16/11
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	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Boron	ppm	ASTM D5185m		<b>2</b>	<1	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	4	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>9</b>	14	7
Calcium	ppm	ASTM D5185m		<b>82</b>	88	74
Phosphorus	ppm	ASTM D5185m		<b>360</b>	380	354
Zinc	ppm	ASTM D5185m		<b>469</b>	457	431
Sulfur	ppm	ASTM D5185m		<b>1070</b>	1155	798
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.36</b>	0.27	0.32
Visc @ 40°C	cSt	ASTM D445		<b>43.4</b>	43.4	43.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0244699  
**Lab Number** : 06123588  
**Unique Number** : 10937739  
**Test Package** : CONST

**RIVER METALS RECYCLING - NEWPORT**  
 P.O. BOX 72-220  
 NEWPORT, KY  
 US 41072  
 Contact: RYAN BOWDEN

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)

**Received** : 20 Mar 2024  
**Tested** : 25 Mar 2024  
**Diagnosed** : 25 Mar 2024 - Wes Davis

T:  
 F: (859)291-0086