



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH22M 135268-1250**  
Component  
**Hydraulic System**  
Fluid  
**LIEBHERR HYDRAULIC HVI (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0258220</b>	---	---
Sample Date		Client Info		<b>09 Jan 2024</b>	---	---
Machine Age	hrs	Client Info		<b>65</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Not Chngd</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>2</b>	---	---
Chromium	ppm	ASTM D5185m	>40	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>5	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>15	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

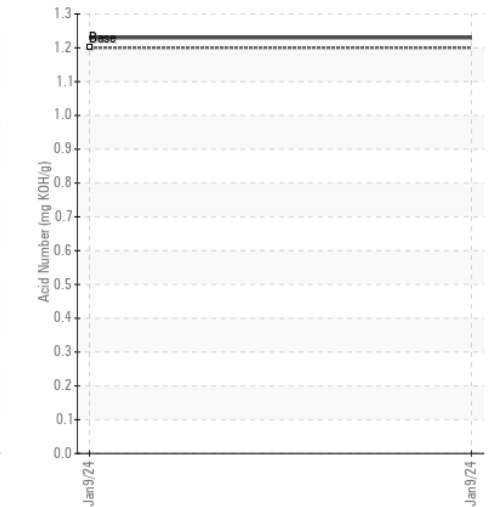
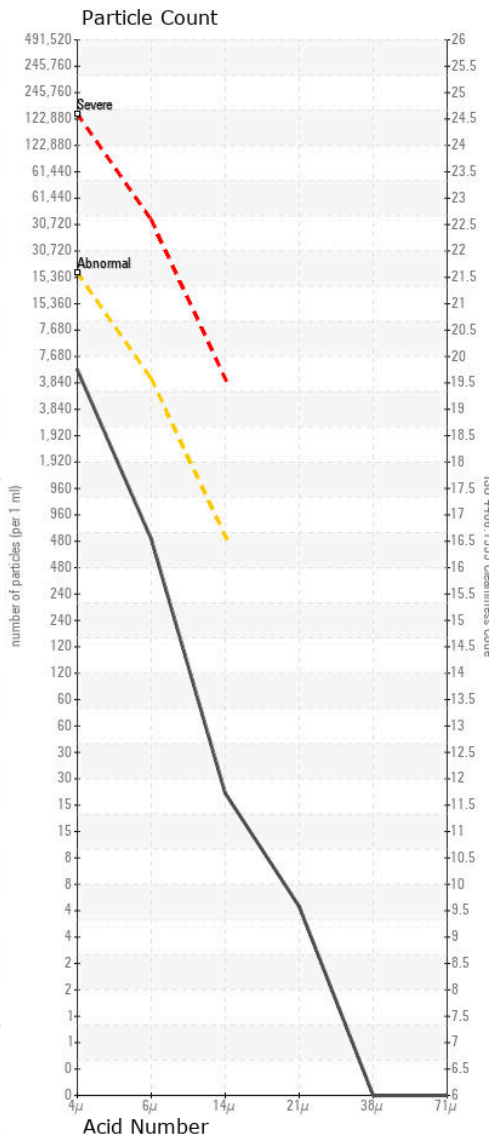
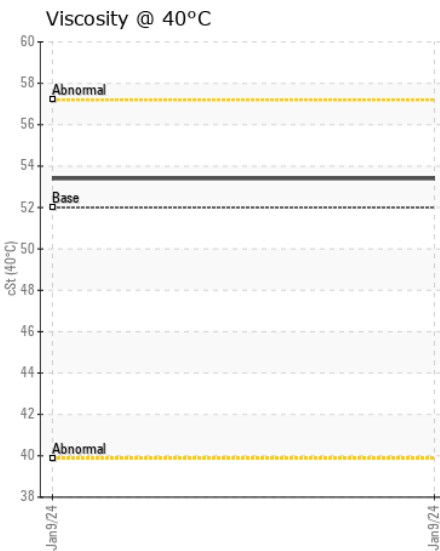
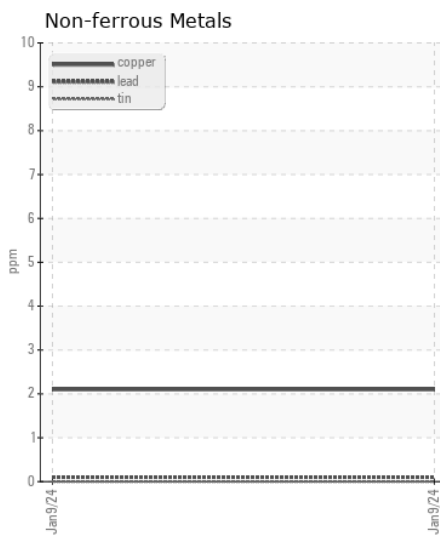
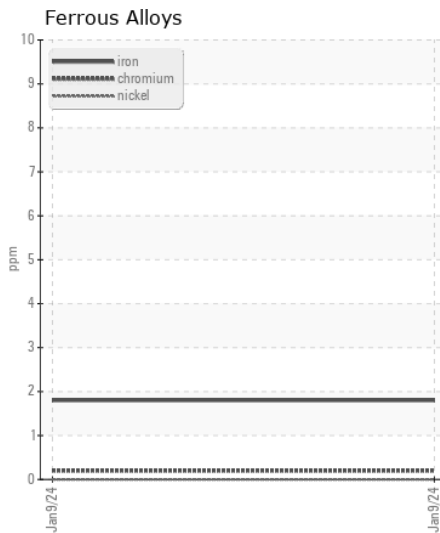
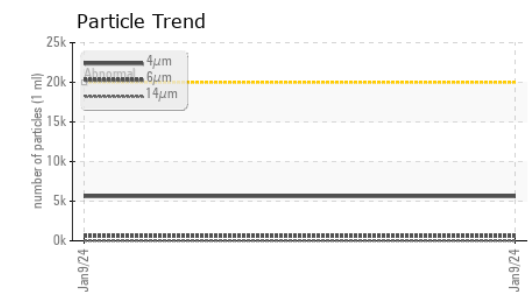
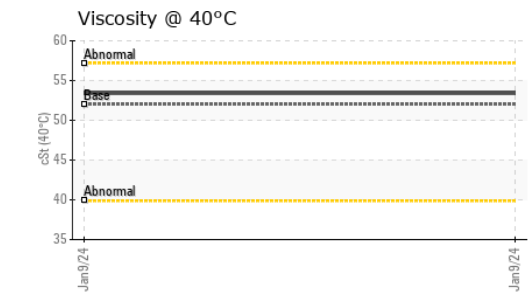
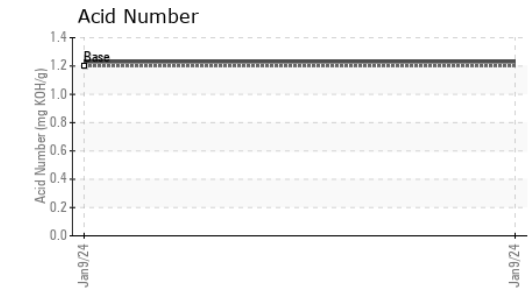
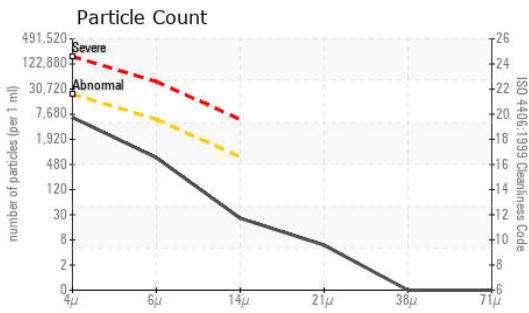
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>6</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>20000	<b>5621</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>613</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>22</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>5</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>0</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/16/12</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

### 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>0</b>	---	---
Boron	ppm	ASTM D5185m		<b>0</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m	7	<b>4</b>	---	---
Calcium	ppm	ASTM D5185m	1500	<b>1560</b>	---	---
Phosphorus	ppm	ASTM D5185m	750	<b>633</b>	---	---
Zinc	ppm	ASTM D5185m	820	<b>751</b>	---	---
Sulfur	ppm	ASTM D5185m	4000	<b>5188</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	<b>1.23</b>	---	---
Visc @ 40°C	cSt	ASTM D445	52	<b>53.4</b>	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : LH0258220      Recieved : 12 Jan 2024  
 Lab Number : 06060184      Diagnosed : 18 Jan 2024  
 Unique Number : 10831566      Diagnostician : Jonathan Hester  
 Test Package : CONST

**M&F CONCRETE PRODUCTS CO**  
 4002 CATLETT RD  
 CATLETT, VA  
 US 20119  
 Contact: Service Manager

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)

T:  
F: