



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH80M 1205-80226**  
Component  
**Hydraulic System**  
Fluid  
**LIEBHERR HYDRAULIC HVI (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LHMC129011</b>	LHMC131029	LHMC131013
Sample Date		Client Info		<b>07 Jun 2024</b>	02 Dec 2019	01 Dec 2019
Machine Age	hrs	Client Info		<b>16621</b>	4185	4185
Oil Age	hrs	Client Info		<b>3440</b>	500	500
Filter Age	hrs	Client Info		<b>0</b>	500	500
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	SEVERE	SEVERE

### WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>10</b>	▲ 75	▲ 79
Chromium	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>5	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>15	<b>2</b>	8	8
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	▲ <b>MODER</b>	▲ MODER	▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

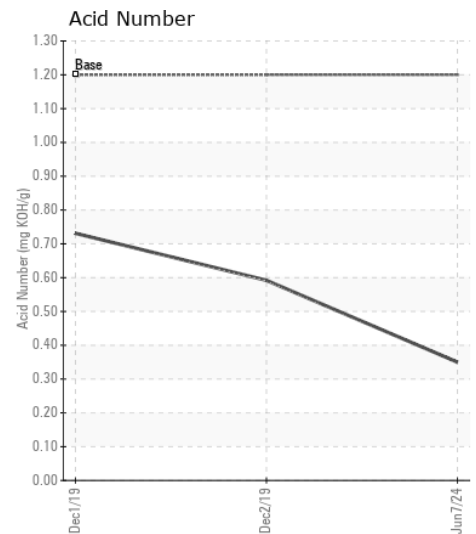
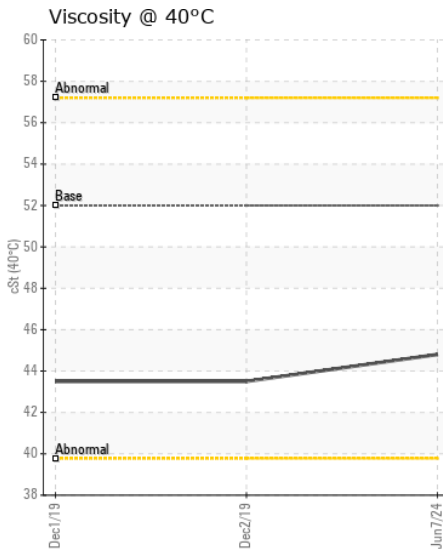
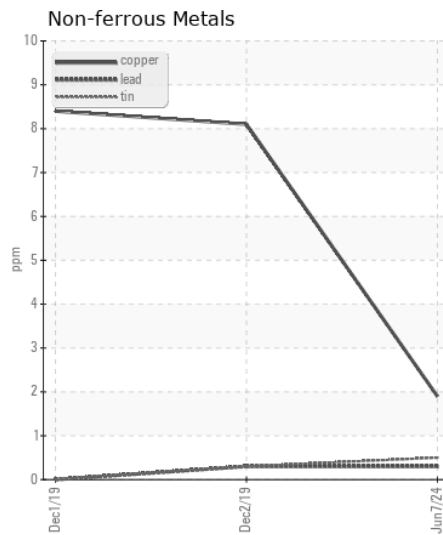
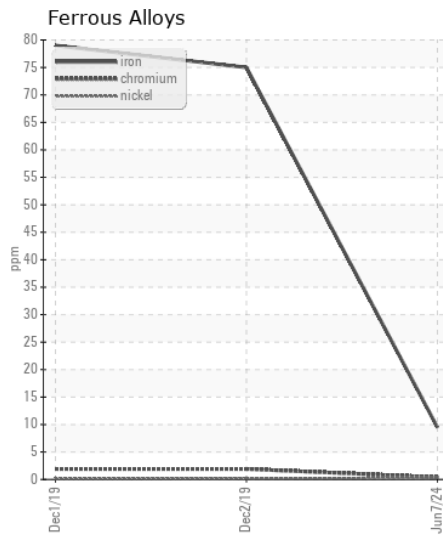
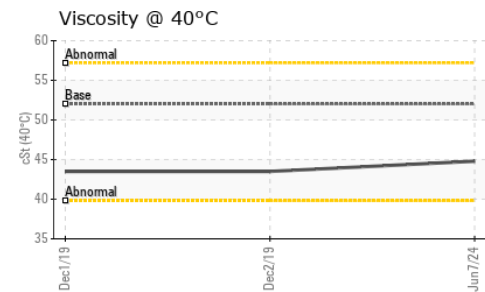
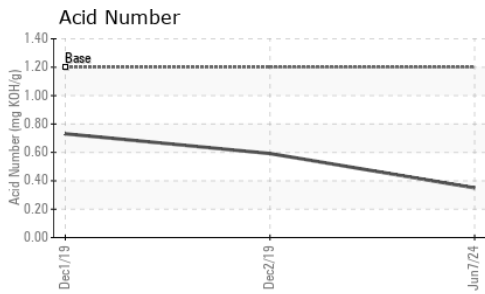
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>LIGHT</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.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	2
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	1
Magnesium	ppm	ASTM D5185m	7	<b>5</b>	2	3
Calcium	ppm	ASTM D5185m	1500	<b>36</b>	507	541
Phosphorus	ppm	ASTM D5185m	750	<b>280</b>	390	404
Zinc	ppm	ASTM D5185m	820	<b>376</b>	493	516
Sulfur	ppm	ASTM D5185m	4000	<b>805</b>	497	1427
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	<b>0.35</b>	0.592	0.731
Visc @ 40°C	cSt	ASTM D445	52	<b>44.8</b>	43.5	43.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LHMC129011 **Received** : 18 Jun 2024  
**Lab Number** : 06213391 **Tested** : 20 Jun 2024  
**Unique Number** : 11086255 **Diagnosed** : 20 Jun 2024 - Don Baldrige  
**Test Package** : MOB 2

**SEATTLE IRON**  
 601 S. MYRTLE STREET  
 SEATTLE, WA  
 US 98108  
 Contact: WILLIAM BEAL

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: (206)413-5209

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