



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 1203-88008**  
Component  
**Transmission**  
Fluid  
**LIEBHERR MOTOROIL 10W-40 (3 LTR)**

### RECOMMENDATION

The fluid change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LHMC142507</b>	LHMC130744	---
Sample Date		Client Info		<b>28 Jan 2020</b>	17 Aug 2018	---
Machine Age	hrs	Client Info		<b>1957</b>	980	---
Oil Age	hrs	Client Info		<b>1000</b>	480	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Not Changd	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>37</b>	20	---
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>10	<b>3</b>	3	---
Lead	ppm	ASTM D5185m	>150	<b>2</b>	<1	---
Copper	ppm	ASTM D5185m	>250	<b>85</b>	40	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

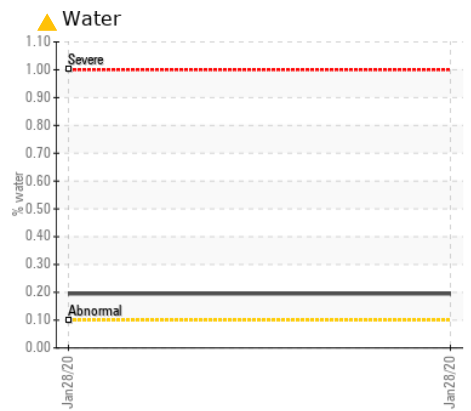
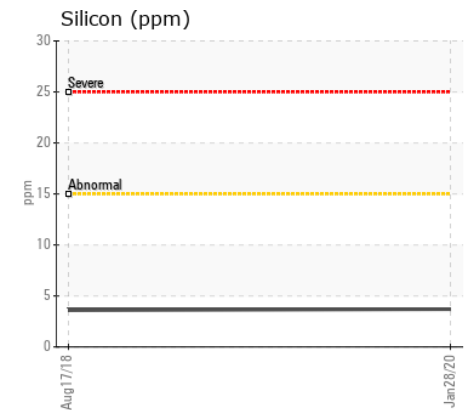
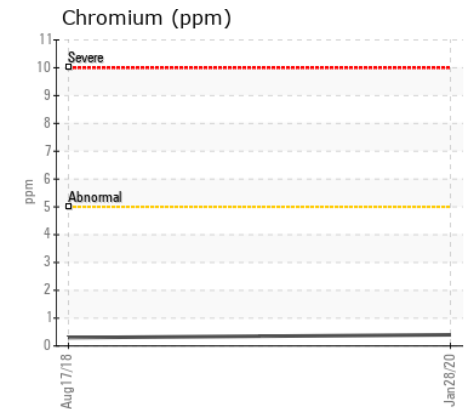
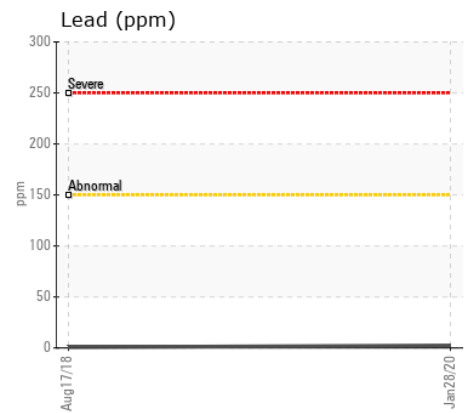
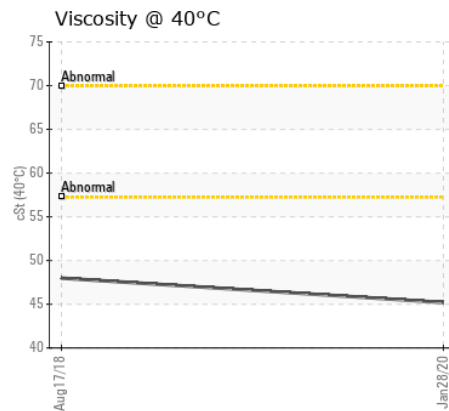
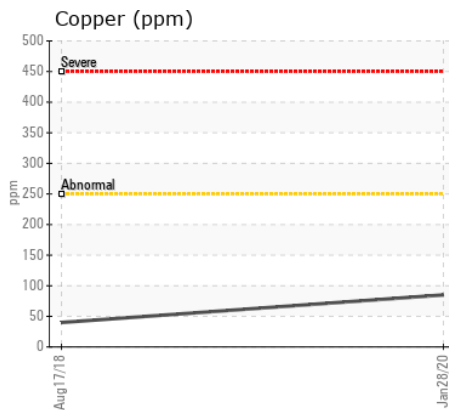
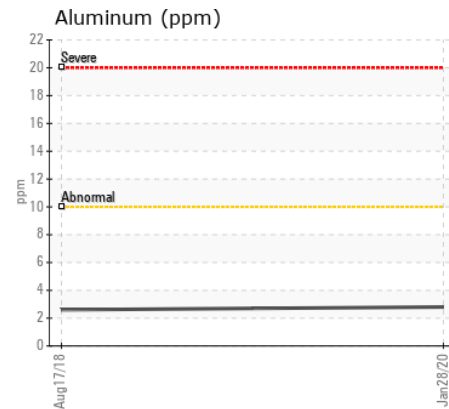
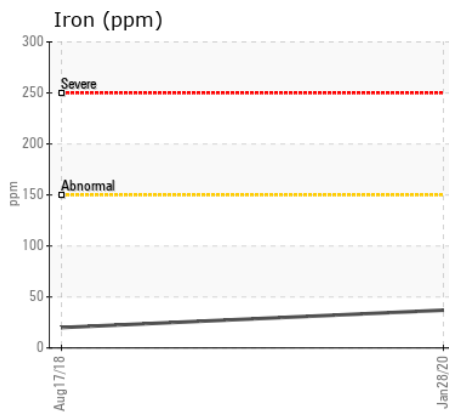
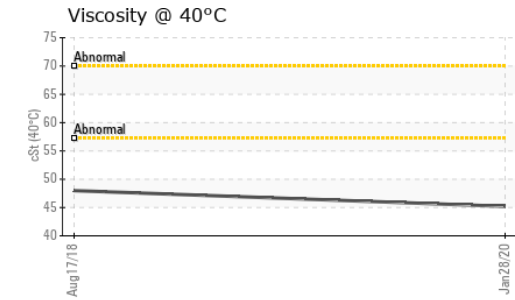
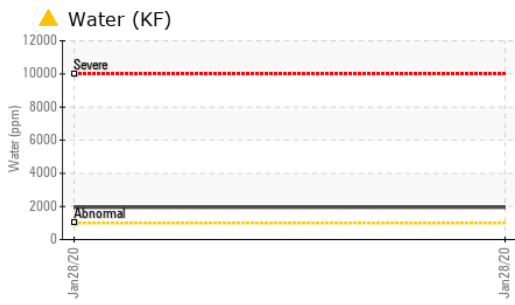
There is a light concentration of water present in the fluid.

Silicon	ppm	ASTM D5185m	>15	<b>4</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	0	---
Water	%	ASTM D6304	>0.1	<b>▲ 0.195</b>	---	---
ppm Water	ppm	ASTM D6304	>1000	<b>▲ 1950</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>0.2%</b>	NEG	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>34</b>	36	---
Boron	ppm	ASTM D5185m		<b>4</b>	6	---
Barium	ppm	ASTM D5185m		<b>1</b>	1	---
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Manganese	ppm	ASTM D5185m		<b>17</b>	12	---
Magnesium	ppm	ASTM D5185m		<b>10</b>	7	---
Calcium	ppm	ASTM D5185m		<b>2987</b>	3134	---
Phosphorus	ppm	ASTM D5185m		<b>977</b>	967	---
Zinc	ppm	ASTM D5185m		<b>1026</b>	1104	---
Sulfur	ppm	ASTM D5185m		<b>7317</b>	8109	---
Visc @ 40°C	cSt	ASTM D445		<b>45.2</b>	47.99	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LHMC142507 **Received** : 12 Feb 2020  
**Lab Number** : 04909985 **Diagnosed** : 13 Feb 2020  
**Unique Number** : 8920063 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: KF )

**JR VINAGRO**  
 2208 PLAINFIELD PIKE  
 JOHNSTON, RI  
 US 02919  
 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)

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F: