



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ABNORMAL**

**NORMAL**

**NORMAL**



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

### RECOMMENDATION

We advise that you inspect for possible wear. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LHMC144346</b>	LHMC142507	LHMC130744
Sample Date		Client Info		<b>08 Mar 2021</b>	28 Jan 2020	17 Aug 2018
Machine Age	hrs	Client Info		<b>3069</b>	1957	980
Oil Age	hrs	Client Info		<b>1069</b>	1000	480
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR

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

Iron	ppm	ASTM D5185m	>150	<b>45</b>	37	20
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>10	<b>3</b>	3	3
Lead	ppm	ASTM D5185m	>150	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m	>250	<b>75</b>	85	40
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>▲ MODER</b>	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

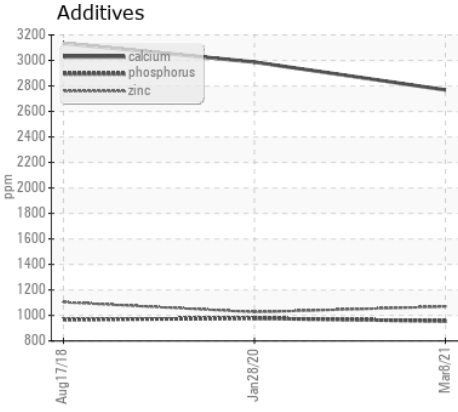
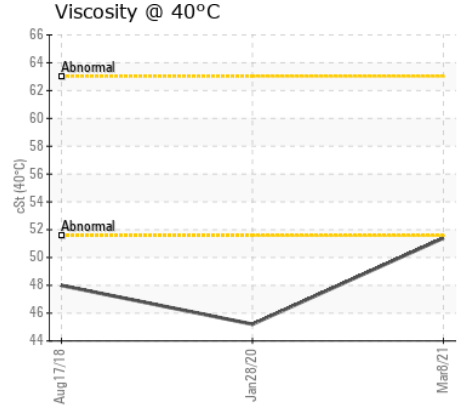
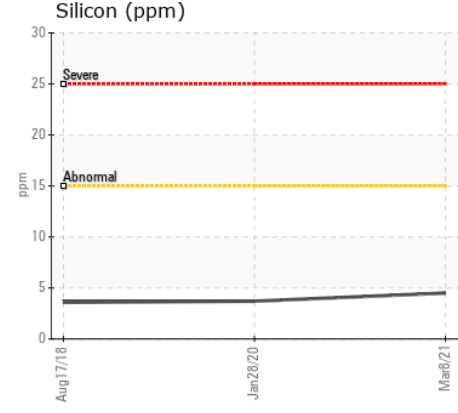
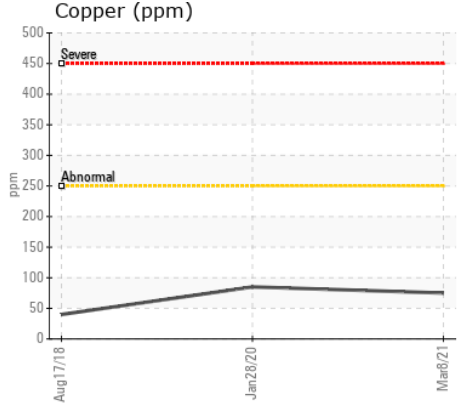
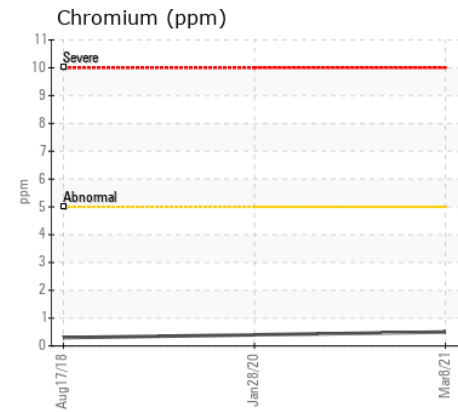
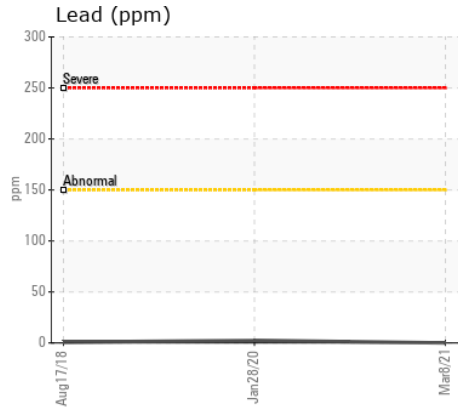
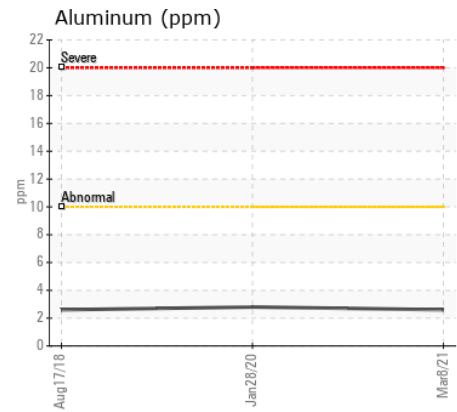
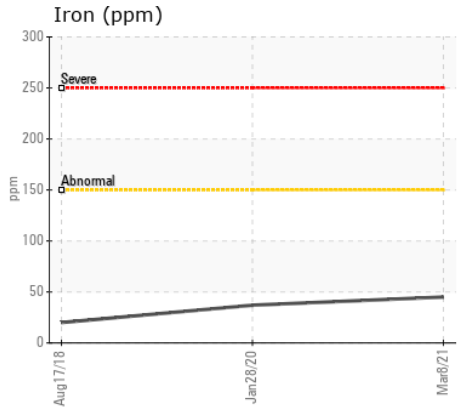
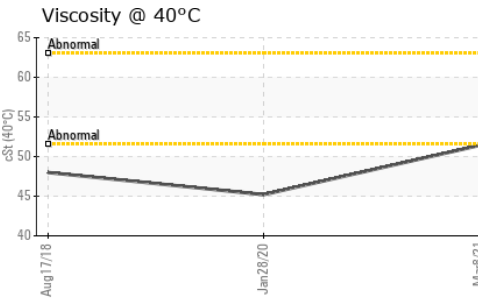
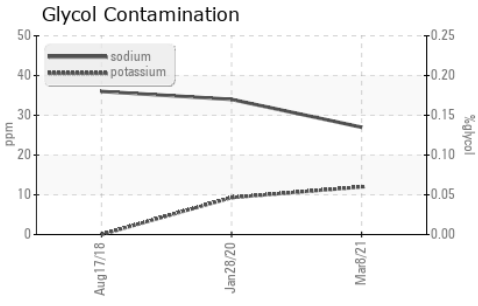
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>15	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>12</b>	9	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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>	0.2%	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>27</b>	34	36
Boron	ppm	ASTM D5185m		<b>92</b>	4	6
Barium	ppm	ASTM D5185m		<b>2</b>	1	1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>16</b>	17	12
Magnesium	ppm	ASTM D5185m		<b>354</b>	10	7
Calcium	ppm	ASTM D5185m		<b>2769</b>	2987	3134
Phosphorus	ppm	ASTM D5185m		<b>956</b>	977	967
Zinc	ppm	ASTM D5185m		<b>1070</b>	1026	1104
Sulfur	ppm	ASTM D5185m		<b>6318</b>	7317	8109
Visc @ 40°C	cSt	ASTM D445		<b>51.4</b>	45.2	47.99



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LHMC144346 **Received** : 09 Mar 2021  
**Lab Number** : 05199162 **Diagnosed** : 10 Mar 2021  
**Unique Number** : 9394473 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: Glycol )

**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: