



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 1203-88008**  
Component  
**Front Right Wheel Hub**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (2 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0207352</b>	LH0184647	---
Sample Date		Client Info		<b>11 Nov 2021</b>	28 Jun 2021	---
Machine Age	hrs	Client Info		<b>5159</b>	4041	---
Oil Age	hrs	Client Info		<b>459</b>	1000	---
Filter Age	hrs	Client Info		<b>459</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>425	<b>50</b>	93	---
Chromium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	---
Lead	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m	>75	<b>4</b>	12	---
Tin	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

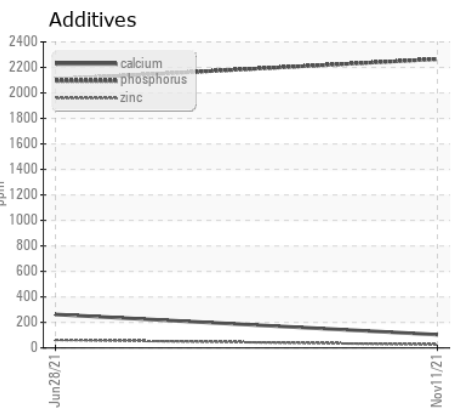
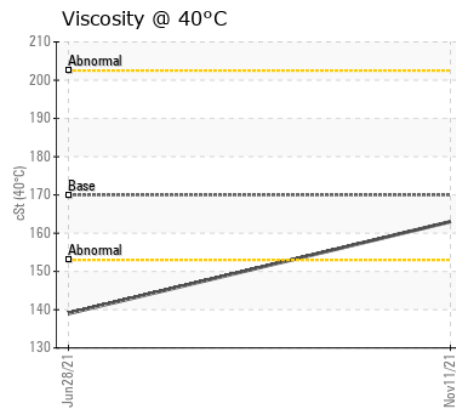
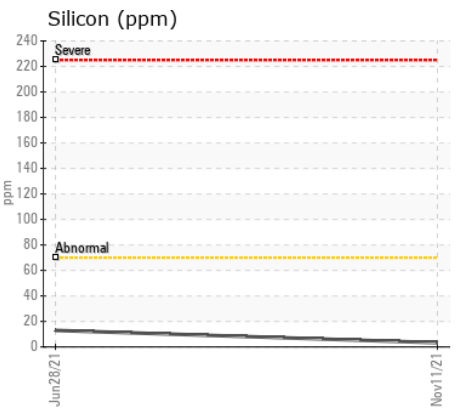
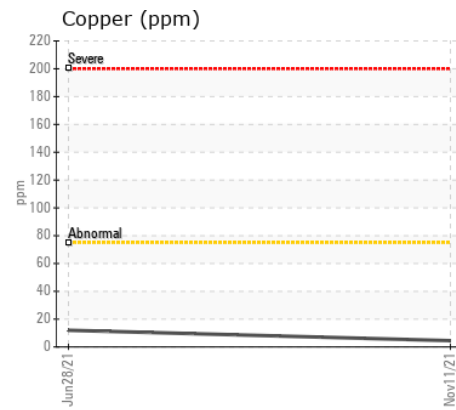
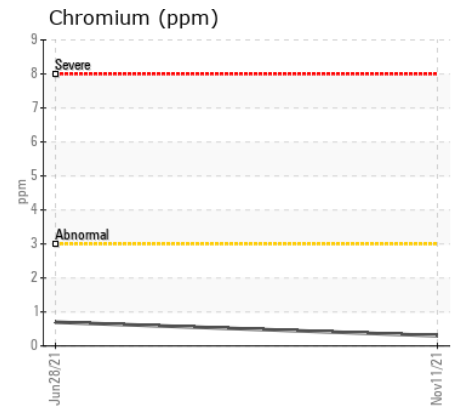
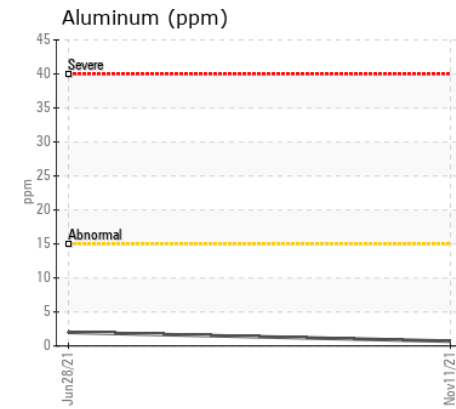
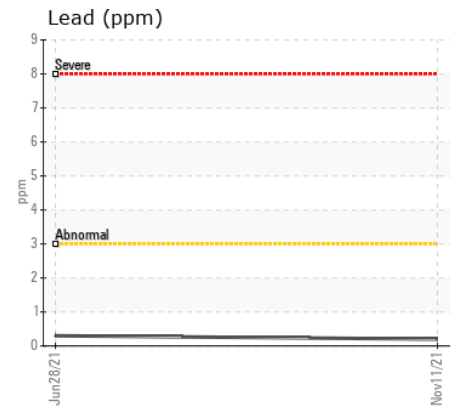
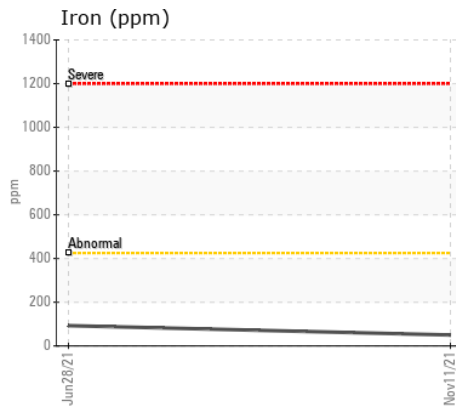
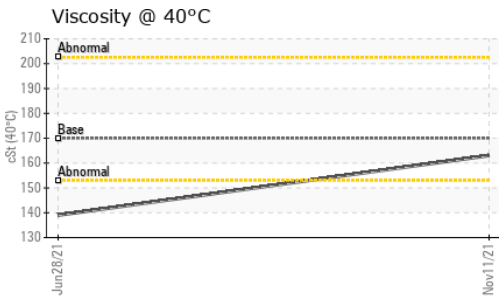
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>70	<b>3</b>	13	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</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	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>17</b>	17	---
Boron	ppm	ASTM D5185m	0	<b>23</b>	21	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	---
Manganese	ppm	ASTM D5185m	0	<b>1</b>	2	---
Magnesium	ppm	ASTM D5185m	<1	<b>1</b>	4	---
Calcium	ppm	ASTM D5185m	<1	<b>104</b>	263	---
Phosphorus	ppm	ASTM D5185m	2143	<b>2265</b>	2107	---
Zinc	ppm	ASTM D5185m	<1	<b>26</b>	63	---
Sulfur	ppm	ASTM D5185m	23468	<b>25056</b>	20837	---
Visc @ 40°C	cSt	ASTM D445	170	<b>163</b>	139	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0207352 **Received** : 19 Nov 2021  
**Lab Number** : 05405305 **Diagnosed** : 23 Nov 2021  
**Unique Number** : 9749468 **Diagnostician** : Angela Borella  
**Test Package** : MOBCE

**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)

T:  
F: