



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50M 1203-88008
Component
Front Differential
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0207360	LH0184653	LH0157979
Sample Date		Client Info		11 Nov 2021	28 Jun 2021	20 Feb 2021
Machine Age	hrs	Client Info		5159	4041	3069
Oil Age	hrs	Client Info		459	1000	1069
Filter Age	hrs	Client Info		459	0	0
Oil Changed		Client Info		Changed	Changed	Not Chngd
Filter Changed		Client Info		N/A	N/A	Not Chngd
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>190	3	14	8
Chromium	ppm	ASTM D5185m	>2	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>5	0	0	<1
Lead	ppm	ASTM D5185m	>15	0	0	0
Copper	ppm	ASTM D5185m	>70	2	6	0
Tin	ppm	ASTM D5185m	>2	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

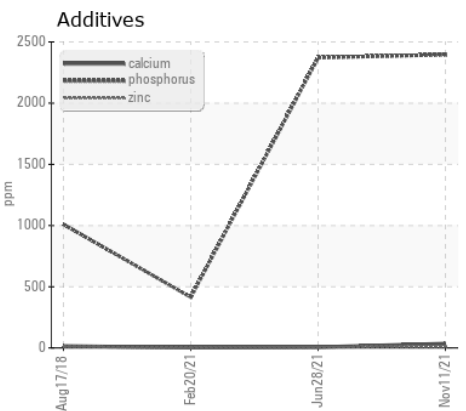
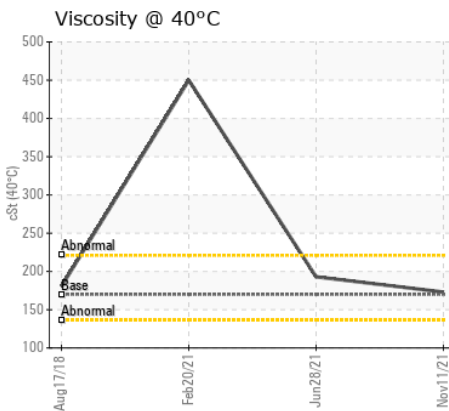
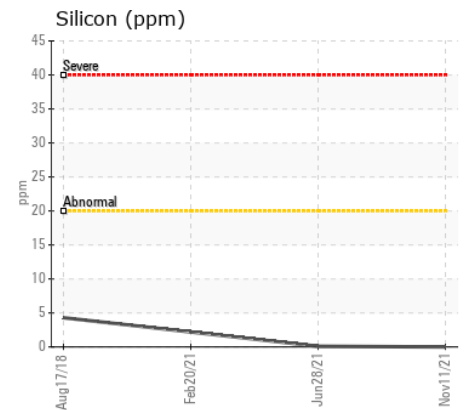
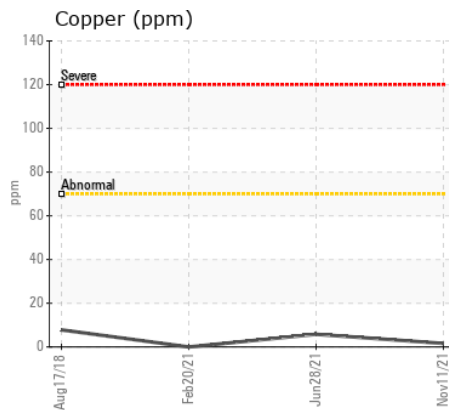
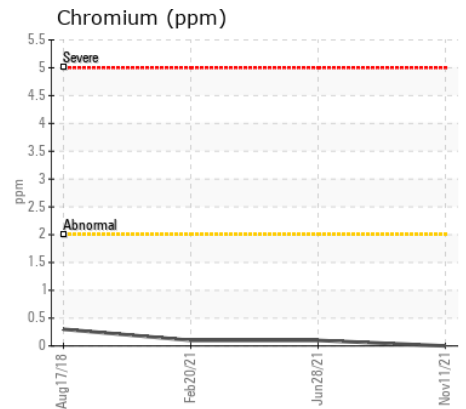
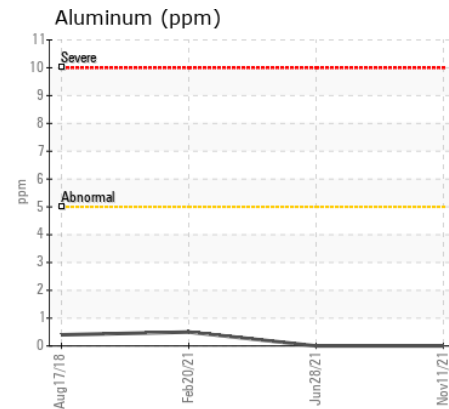
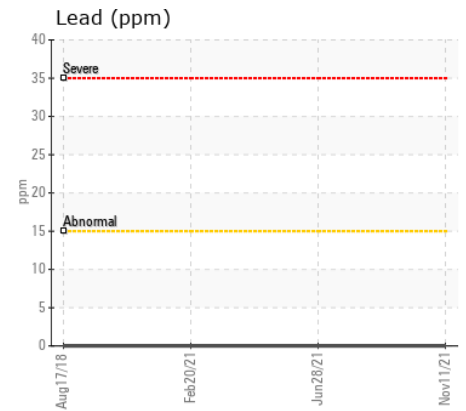
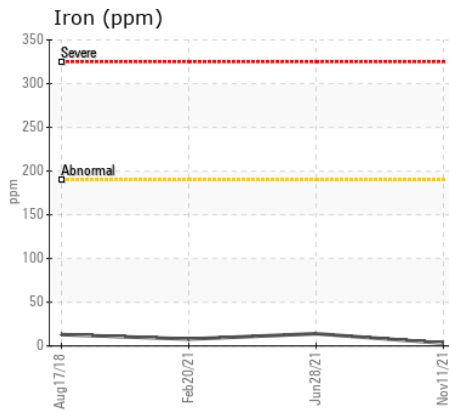
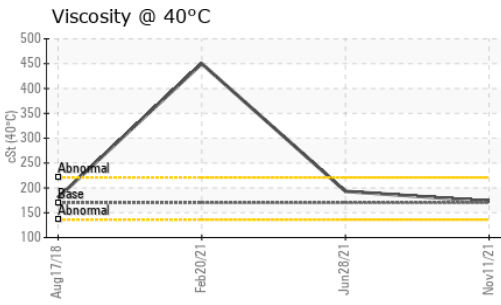
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	0	<1	2
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		3	3	<1
Boron	ppm	ASTM D5185m	0	27	23	93
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm	ASTM D5185m	0	0	<1	0
Magnesium	ppm	ASTM D5185m	<1	<1	0	0
Calcium	ppm	ASTM D5185m	<1	36	7	3
Phosphorus	ppm	ASTM D5185m	2143	2396	2372	415
Zinc	ppm	ASTM D5185m	<1	11	5	0
Sulfur	ppm	ASTM D5185m	23468	25056	25056	6941
Visc @ 40°C	cSt	ASTM D445	170	173	193	▲ 450



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0207360 **Received** : 19 Nov 2021
Lab Number : 05405314 **Diagnosed** : 23 Nov 2021
Unique Number : 9749477 **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)

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