



LIEBHERR

OIL ANALYSIS REPORT



Area
[KIMMEL]
 Machine Id
LIEBHERR LH50M 1216-117615
 Component
Transmission
 Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0268641	LH06073407	LHMC165186
Sample Date		Client Info		20 Mar 2024	28 Jan 2024	21 Jun 2021
Machine Age	hrs	Client Info		5510	1216	3193
Oil Age	hrs	Client Info		510	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	N/A	Changed
Filter Changed		Client Info		Not Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>148	22	37	34
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	2	4
Lead	ppm	ASTM D5185m	>203	0	0	1
Copper	ppm	ASTM D5185m	>520	21	38	54
Tin	ppm	ASTM D5185m	>7	0	2	3
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

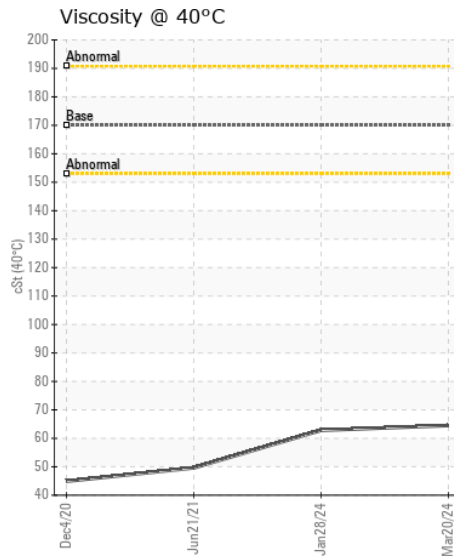
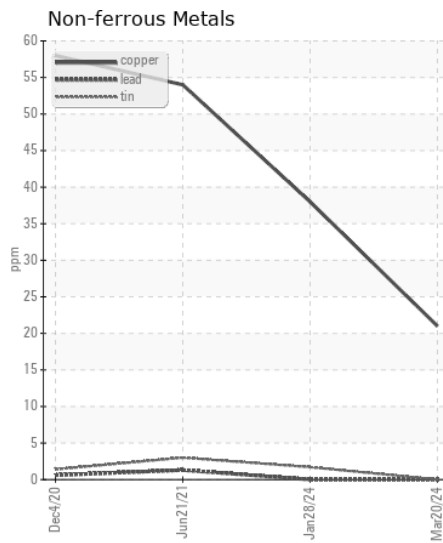
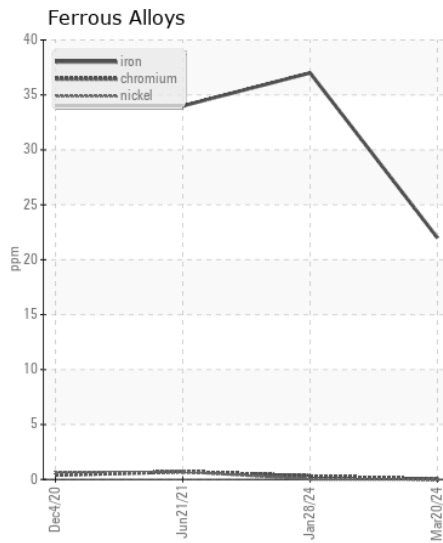
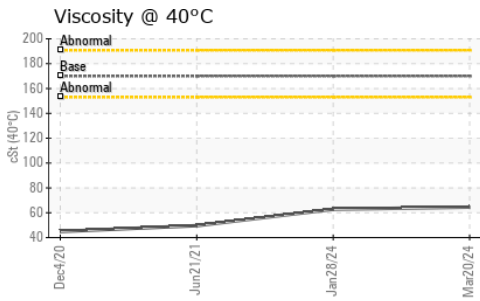
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>15	4	6	5
Potassium	ppm	ASTM D5185m	>20	0	3	8
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		5	4	23
Boron	ppm	ASTM D5185m	0	175	171	173
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	0	17	28	<1
Manganese	ppm	ASTM D5185m	0	12	21	22
Magnesium	ppm	ASTM D5185m	<1	775	706	18
Calcium	ppm	ASTM D5185m	<1	1586	1471	3809
Phosphorus	ppm	ASTM D5185m	2143	912	790	1152
Zinc	ppm	ASTM D5185m	<1	939	877	1177
Sulfur	ppm	ASTM D5185m	23468	4926	4099	8185
Visc @ 40°C	cSt	ASTM D445	170	64.5	62.8	49.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : LH0268641

Lab Number : 06125261

Unique Number : 10939412

Test Package : CONST

Received : 21 Mar 2024

Tested : 25 Mar 2024

Diagnosed : 25 Mar 2024 - Don Baldrige

RECO EQUIPMENT INC

10461 GRAND RIVER RD

BRIGHTON, MI

US 48116

Contact: MATT VISEL

MVISEL@RECOEQUIP.COM

T: (810)299-1731

F:

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)