



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
(348279)
Machine Id
LIEBHERR LH50M 129938-1216
Component
Swing Drive
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0284362	---	---
Sample Date		Client Info		15 Feb 2024	---	---
Machine Age	hrs	Client Info		3030	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>1450	255	---	---
Chromium	ppm	ASTM D5185(m)	>11	2	---	---
Nickel	ppm	ASTM D5185(m)	>3	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>4	<1	---	---
Lead	ppm	ASTM D5185(m)	>4	2	---	---
Copper	ppm	ASTM D5185(m)	>542	59	---	---
Tin	ppm	ASTM D5185(m)	>38	4	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

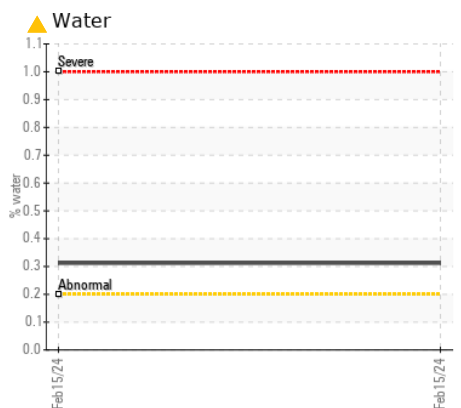
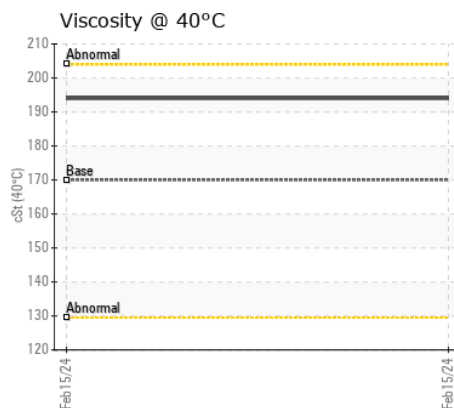
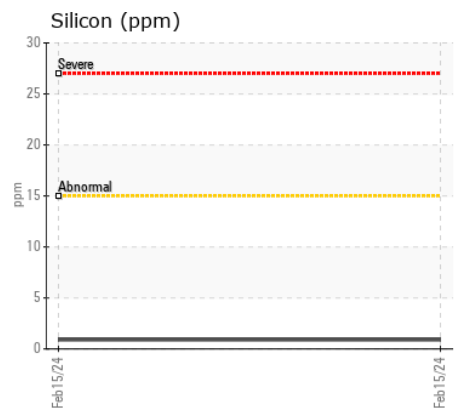
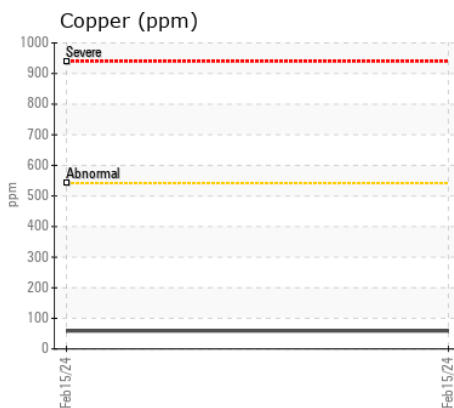
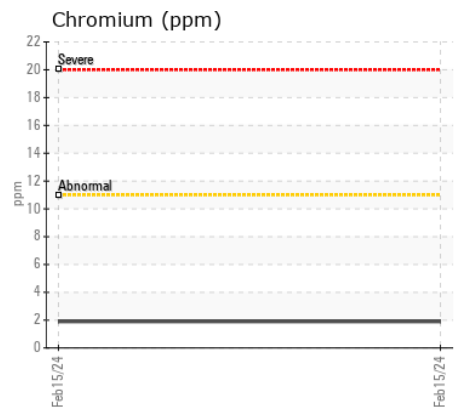
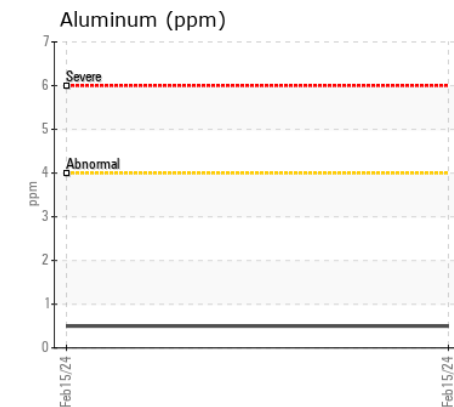
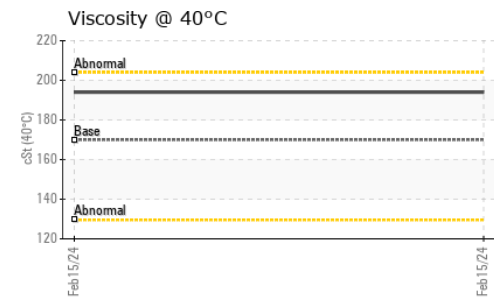
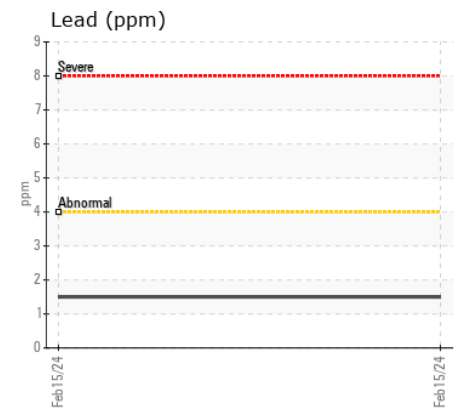
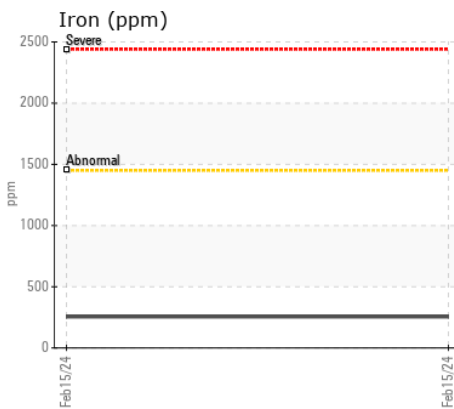
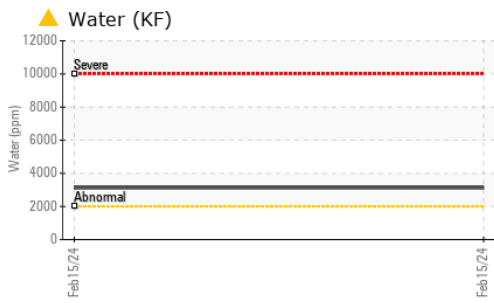
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<1	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Water	%	ASTM D6304*	>0.2	▲ 0.312	---	---
ppm Water	ppm	ASTM D6304*	>2000	▲ 3123	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	---	---

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		2	---	---
Boron	ppm	ASTM D5185(m)	0	1	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---	---
Manganese	ppm	ASTM D5185(m)	0	2	---	---
Magnesium	ppm	ASTM D5185(m)	<1	1	---	---
Calcium	ppm	ASTM D5185(m)	<1	6	---	---
Phosphorus	ppm	ASTM D5185(m)	2143	2212	---	---
Zinc	ppm	ASTM D5185(m)	<1	19	---	---
Sulfur	ppm	ASTM D5185(m)	23468	25321	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	170	194	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0284362 **Received** : 20 Feb 2024
Lab Number : 02616738 **Tested** : 21 Feb 2024
Unique Number : 5733848 **Diagnosed** : 21 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KF)

METAUX 139 INC.
 86 RTE MARIE-VICTORIN
 PIERREVILLE, QC
 CA J0G 1J0
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

T:
F: