



LIEBHERR

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L580 069442-1762
Component
Rear Differential
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

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		LH0247597	---	---
Sample Date		Client Info		03 Jan 2024	---	---
Machine Age	hrs	Client Info		3500	---	---
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				SEVERE	---	---

WEAR

Copper and tin ppm levels are severe. Thrust washer and/or bearing/bushing wear is indicated.

Iron	ppm	ASTM D5185(m)	>800	411	---	---
Chromium	ppm	ASTM D5185(m)	>10	2	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)	>8	0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	2	---	---
Lead	ppm	ASTM D5185(m)	>10	6	---	---
Copper	ppm	ASTM D5185(m)	>100	240	---	---
Tin	ppm	ASTM D5185(m)	>5	18	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	LIGHT	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

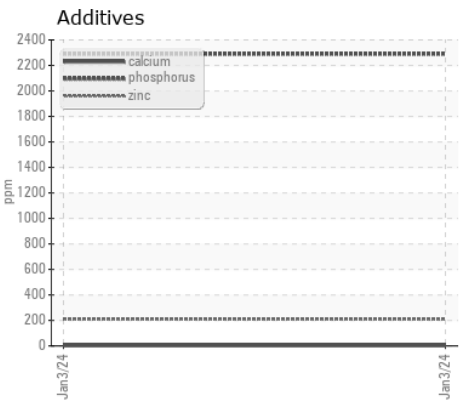
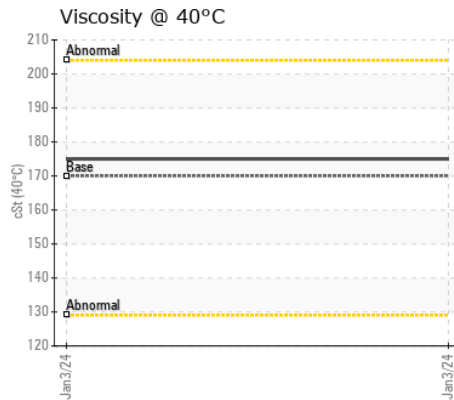
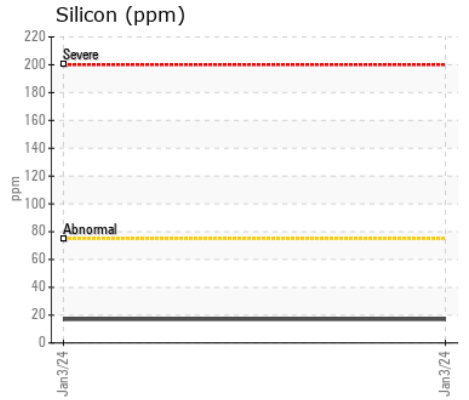
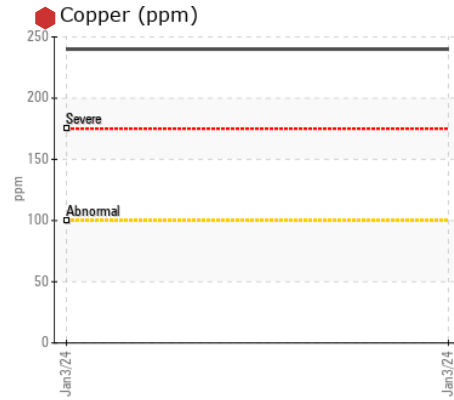
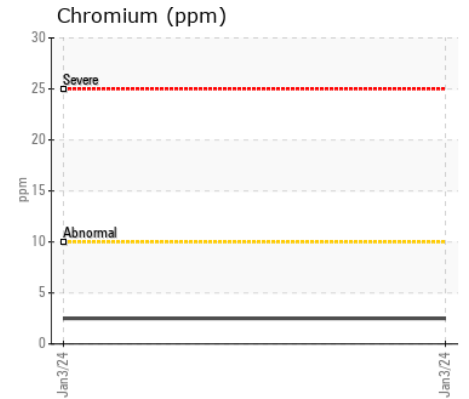
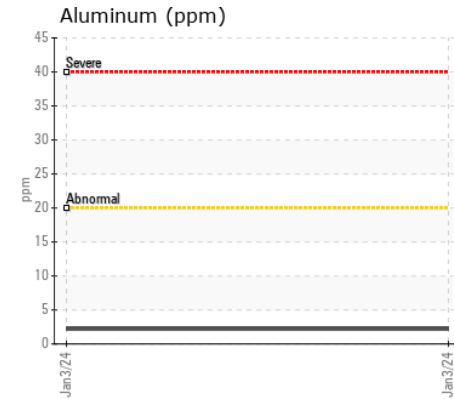
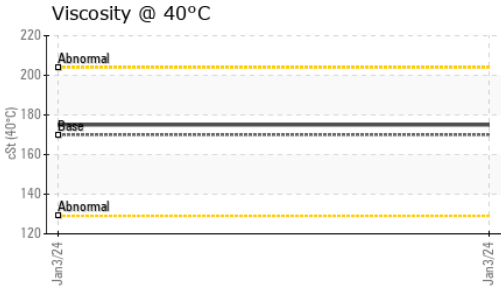
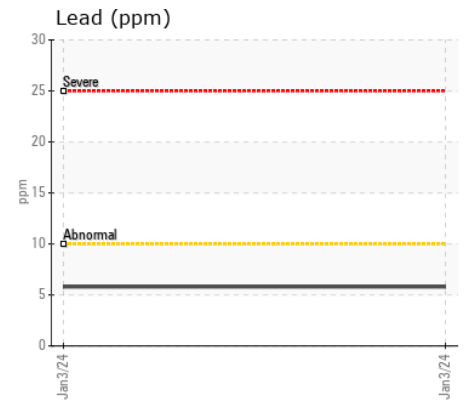
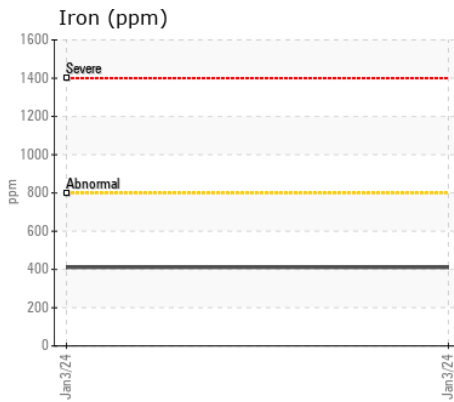
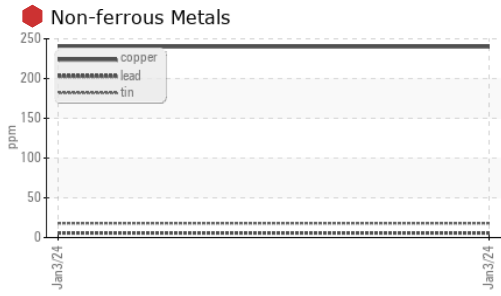
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	17	---	---
Potassium	ppm	ASTM D5185(m)	>20	0	---	---
Water		WC Method	>.2	NEG	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>.2	NEG	---	---

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		6	---	---
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	24	---	---
Magnesium	ppm	ASTM D5185(m)	<1	2	---	---
Calcium	ppm	ASTM D5185(m)	<1	4	---	---
Phosphorus	ppm	ASTM D5185(m)	2143	2291	---	---
Zinc	ppm	ASTM D5185(m)	<1	210	---	---
Sulfur	ppm	ASTM D5185(m)	23468	24787	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	170	175	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0247597 **Received** : 16 Jan 2024
Lab Number : 02609102 **Diagnosed** : 17 Jan 2024
Unique Number : 5710188 **Diagnostician** : Kevin Marson
Test Package : MOBCE (Additional Tests: Visual)

HUBERT ET FILS INC
 1012 CHEMIN DE PARC INDUSTRIEL
 BOIS-FRANC, QC
 CA J9E 3A9
 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.

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F: