



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L580 040987-1170
Component
Rear Differential
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0279019	LH0192873	LH0242561
Sample Date		Client Info		16 Jan 2024	11 Jul 2023	27 Oct 2022
Machine Age	hrs	Client Info		10169	8082	8084
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>800	76	54	490
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	8
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>8	0	0	<1
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	2
Lead	ppm	ASTM D5185(m)	>10	0	0	0
Copper	ppm	ASTM D5185(m)	>100	2	2	6
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

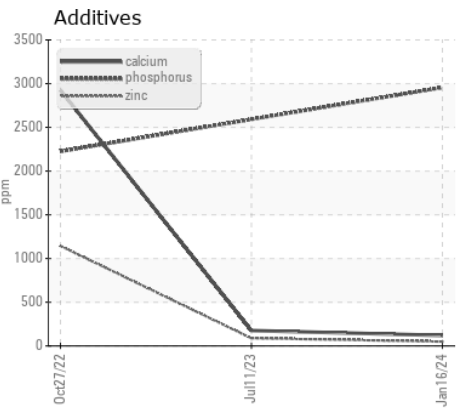
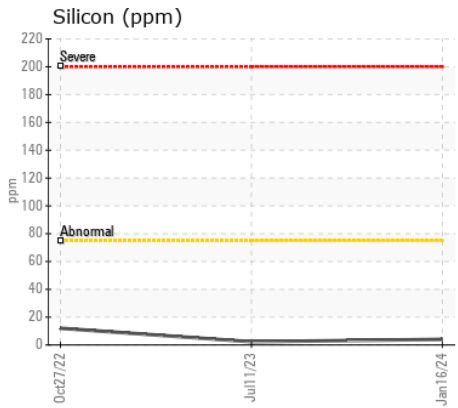
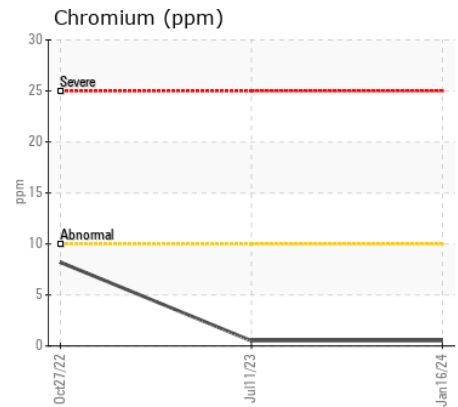
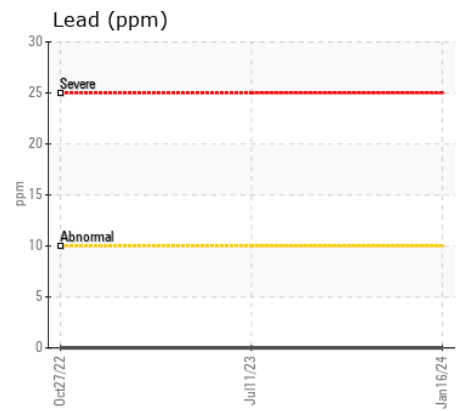
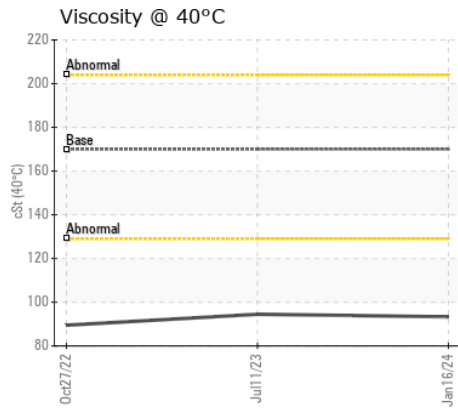
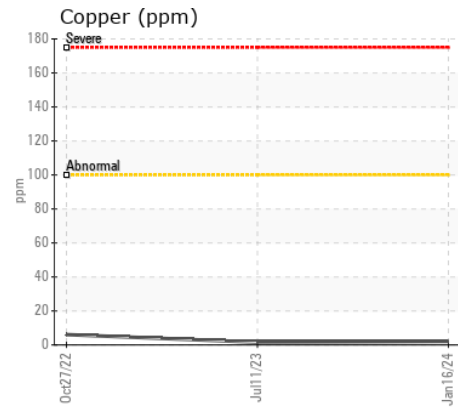
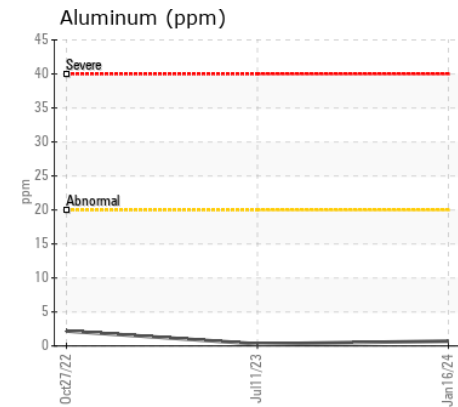
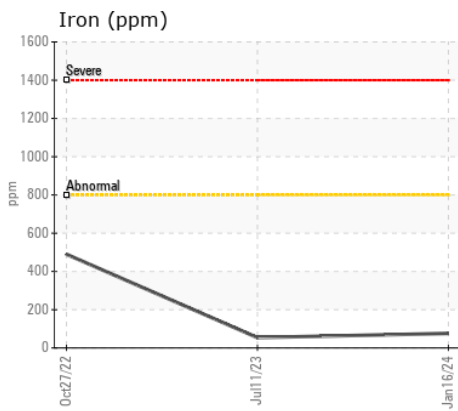
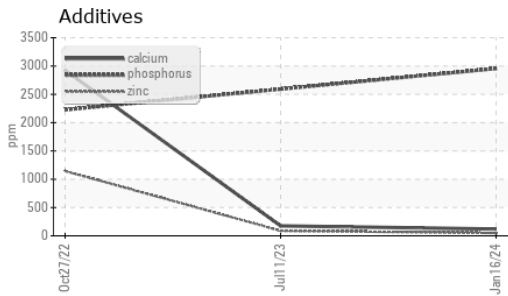
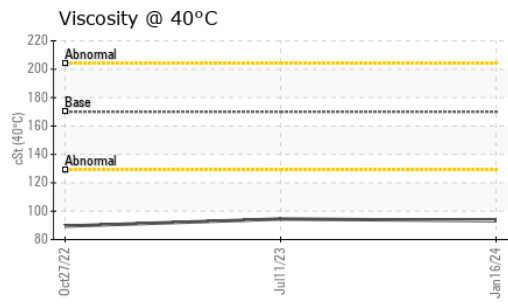
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	4	2	12
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
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

Viscosity of sample indicates oil is within SAE 75W90 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	1	2
Boron	ppm	ASTM D5185(m)	0	277	275	32
Barium	ppm	ASTM D5185(m)	0	0	0	1
Molybdenum	ppm	ASTM D5185(m)	0	8	7	24
Manganese	ppm	ASTM D5185(m)	0	<1	<1	4
Magnesium	ppm	ASTM D5185(m)	<1	3	5	32
Calcium	ppm	ASTM D5185(m)	<1	120	176	2925
Phosphorus	ppm	ASTM D5185(m)	2143	2956	2592	2226
Zinc	ppm	ASTM D5185(m)	<1	49	88	1144
Sulfur	ppm	ASTM D5185(m)	23468	19799	18633	4103
Visc @ 40°C	cSt	ASTM D7279(m)	170	93.3	94.5	89.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **THOMAS CAVANAGH CONSTRUCTION LTD**
Sample No. : LH0279019 **Received** : 23 Jan 2024 **RR # 2, 9094 CAVANAGH ROAD**
Lab Number : 02610682 **Diagnosed** : 23 Jan 2024 **ASHTON, ON**
Unique Number : 5711768 **Diagnostician** : Kevin Marson **CA K0A 1B0**
Test Package : MOB 1 **Contact: Keith**

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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