

## WEAR SEVERE CONTAMINATION NORMAL FLUID CONDITION NORMAL



# Machine Id LIEBHERR L580 069442-1762

Front Differential

### GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

#### WEAR

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

#### CONTAMINATION

There is no indication of any contamination in the oil.

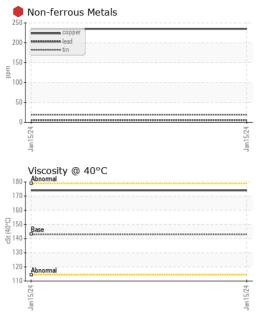
#### FLUID CONDITION

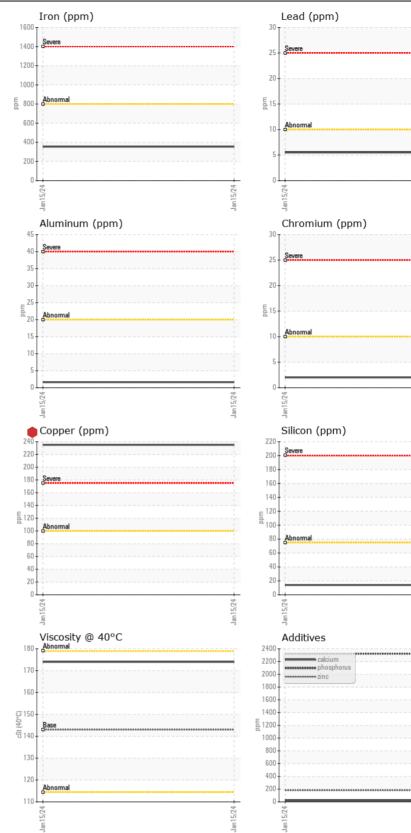
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The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0247607		
Sample Date		Client Info		15 Jan 2024		
Machine Age	hrs	Client Info		3567		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				SEVERE		
				054		
Iron	ppm	ASTM D5185(m)	>800	354		
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)	00	0		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>10	6		
Copper	ppm	ASTM D5185(m)	>100	235		
Tin	ppm	ASTM D5185(m)	>5	19		
Vanadium	ppm	ASTM D5185(m)	NONE	0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	LIGHT		
Silicon	ppm	ASTM D5185(m)	>75	14		
Potassium	ppm	ASTM D5185(m)	>20	<1		
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		
			470			
Sodium	ppm	ASTM D5185(m)	>170	4		
Boron	ppm	ASTM D5185(m)	400	<1		
Barium	ppm	ASTM D5185(m)	200	0		
Molybdenum	ppm	ASTM D5185(m)	12	0		
Manganese	ppm	ASTM D5185(m)	10	34		
Magnesium	ppm	ASTM D5185(m)	12	1		
Calcium	ppm	ASTM D5185(m)	150	21		
Phosphorus	ppm	ASTM D5185(m)	1650	2323		
Zinc	ppm	ASTM D5185(m)	125	180		
Culture	10.10.100	ACTM DETOE()	00000	04000		
Sulfur Visc @ 40°C	ppm cSt	ASTM D5185(m) ASTM D7279(m)	22500 143	24928 174		

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HUBERT ET FILS INC Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA . Sample No. Recieved : 16 Jan 2024 1012 CHEMIN DE PARC INDUSTRIEL : LH0247607 Lab Number : 02609123 BOIS-FRANC, QC Diagnosed : 16 Jan 2024 ISO 17025:2017 : 5710209 Accredited Diagnostician : Kevin Marson CA J9E 3A9 Unique Number Laboratory Test Package : MOBCE (Additional Tests: Visual) 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. F:

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