



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ABNORMAL**

**NORMAL**

**NORMAL**



Area  
**(337755)**  
Machine Id  
**LIEBHERR L556 057483-1332**  
Component  
**Rear Differential**  
Fluid  
**GEAR OIL LS 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 LS 80W90. Please confirm.

### WEAR

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

### CONTAMINATION

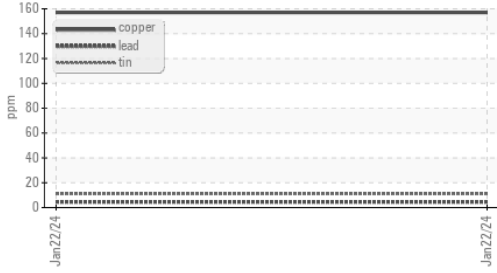
There is no indication of any contamination in the oil.

### FLUID CONDITION

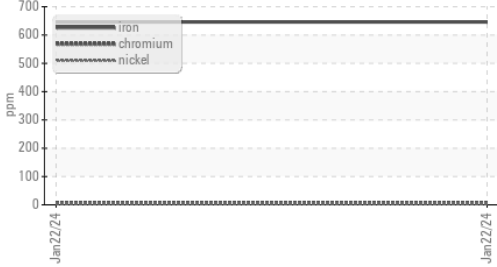
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH</b>	---	---
Sample Date		Client Info		<b>22 Jan 2024</b>	---	---
Machine Age	hrs	Client Info		<b>7383</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---
Iron	ppm	ASTM D5185(m)	>1000	<b>646</b>	---	---
Chromium	ppm	ASTM D5185(m)	>10	<b>4</b>	---	---
Nickel	ppm	ASTM D5185(m)	>2	<b>▲ 3</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	---	---
Lead	ppm	ASTM D5185(m)	>5	<b>4</b>	---	---
Copper	ppm	ASTM D5185(m)	>100	<b>▲ 157</b>	---	---
Tin	ppm	ASTM D5185(m)	>10	<b>▲ 11</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Silicon	ppm	ASTM D5185(m)	>100	<b>27</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Water		WC Method	>.2	<b>NEG</b>	---	---
Silt	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>.2	<b>NEG</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>10</b>	---	---
Boron	ppm	ASTM D5185(m)	150	<b>2</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>26</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>69</b>	---	---
Magnesium	ppm	ASTM D5185(m)	10	<b>4</b>	---	---
Calcium	ppm	ASTM D5185(m)	70	<b>19</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	2000	<b>2245</b>	---	---
Zinc	ppm	ASTM D5185(m)	50	<b>73</b>	---	---
Sulfur	ppm	ASTM D5185(m)	20000	<b>26070</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	140	<b>192</b>	---	---

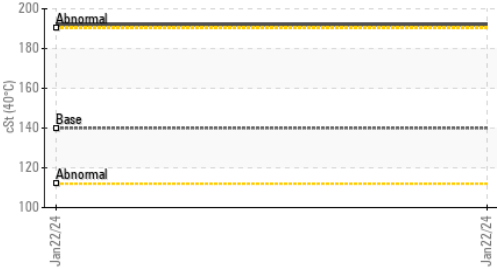
▲ Non-ferrous Metals



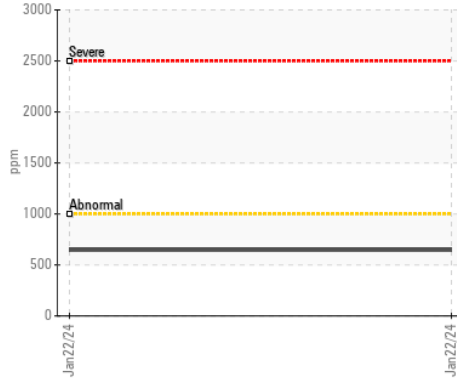
▲ Ferrous Alloys



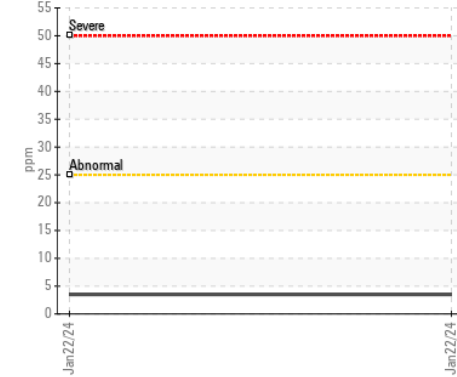
Viscosity @ 40°C



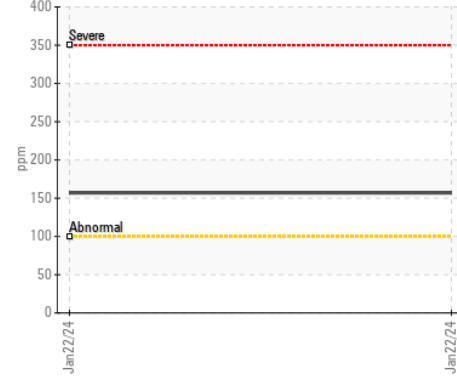
Iron (ppm)



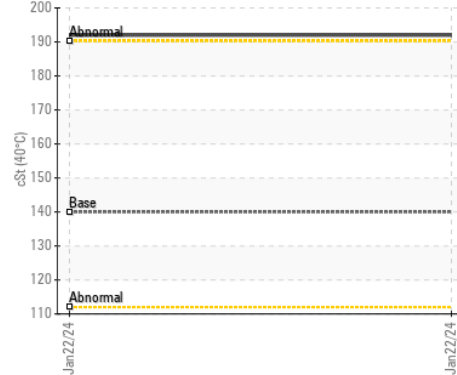
Aluminum (ppm)



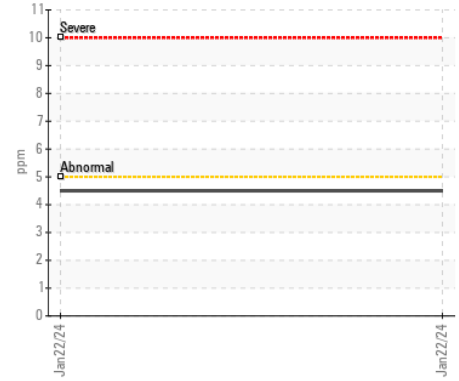
▲ Copper (ppm)



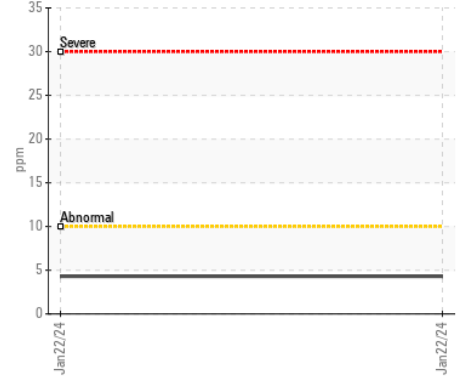
Viscosity @ 40°C



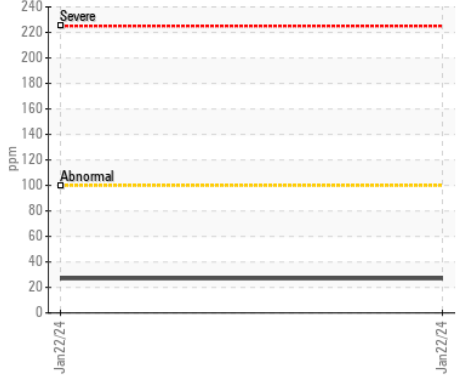
Lead (ppm)



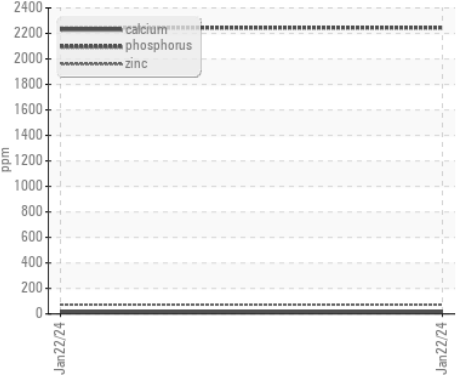
Chromium (ppm)



Silicon (ppm)



Additives



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **LES CHARGEMENTS ERIC TURPIN**  
**Sample No.** : LH **Recieved** : 23 Jan 2024 1170 CHEMIN DES VILLAS  
**Lab Number** : 02610652 **Diagnosed** : 23 Jan 2024 MONT-LAURIER, QC  
**Unique Number** : 5711738 **Diagnostician** : Kevin Marson CA J9L 3G7  
**Test Package** : MOB 1 Contact: ERIC TURPIN

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: