



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR L586 068244**  
Component  
**Front Differential**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0288162</b>	LH0278597	LH0278519
Sample Date		Client Info		<b>25 Apr 2024</b>	21 Feb 2024	22 Dec 2023
Machine Age	hrs	Client Info		<b>9033</b>	8026	7142
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>None</b>	None	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>1500	<b>24</b>	33	38
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>200	<b>5</b>	5	4
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

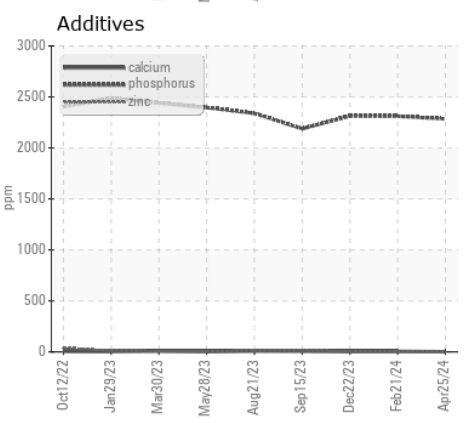
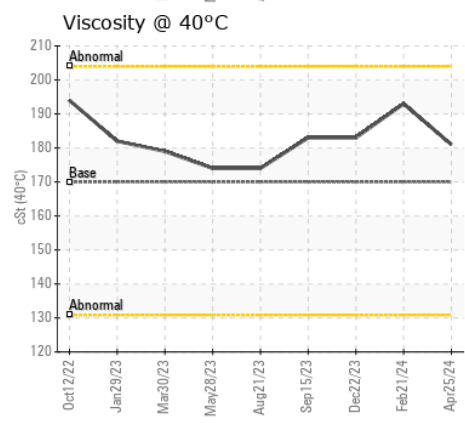
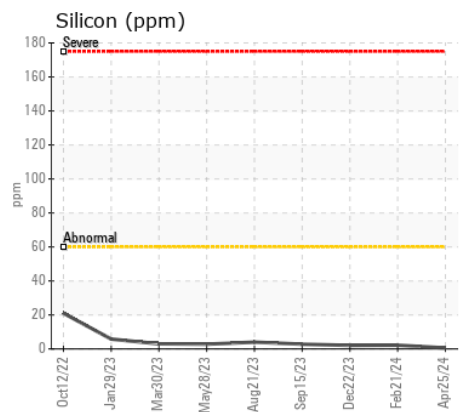
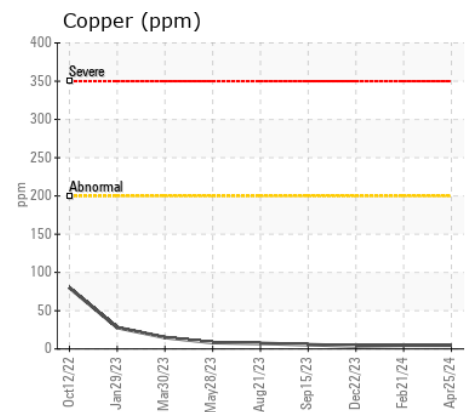
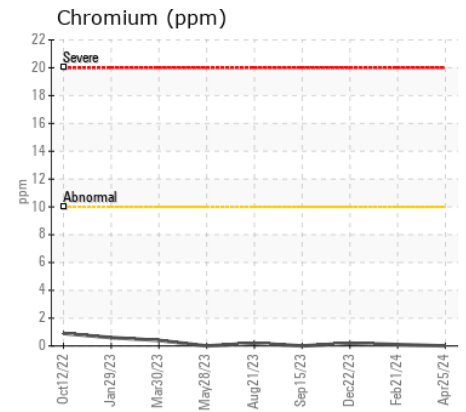
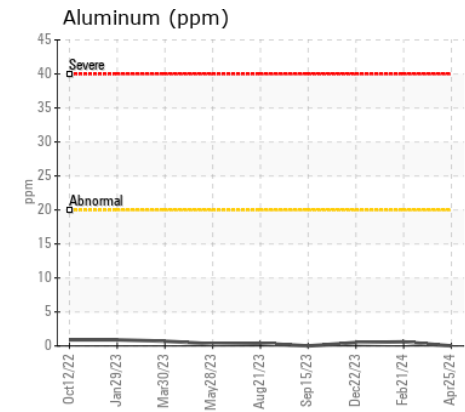
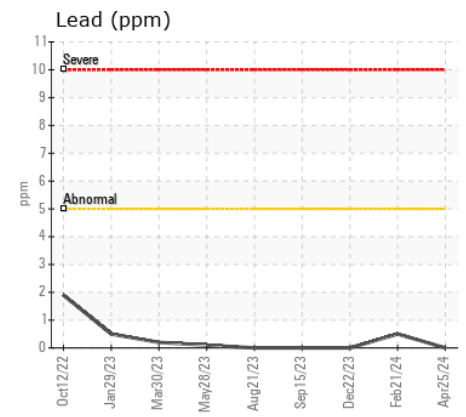
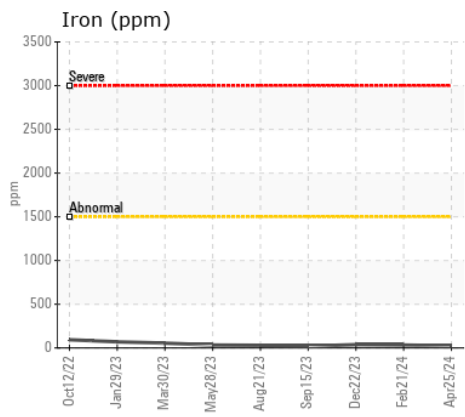
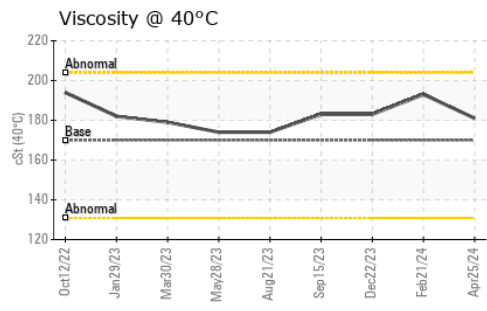
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>&lt;1</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	2	2
Boron	ppm	ASTM D5185(m)	0	<b>4</b>	<1	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0	<b>1</b>	2	2
Magnesium	ppm	ASTM D5185(m)	<1	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	<1	<b>2</b>	5	4
Phosphorus	ppm	ASTM D5185(m)	2143	<b>2284</b>	2311	2314
Zinc	ppm	ASTM D5185(m)	<1	<b>3</b>	5	6
Sulfur	ppm	ASTM D5185(m)	23468	<b>25240</b>	24172	24690
Visc @ 40°C	cSt	ASTM D7279(m)	170	<b>181</b>	193	183



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0288162  
**Lab Number** : 02633288  
**Unique Number** : 5774441  
**Test Package** : MOB 1  
**Received** : 03 May 2024  
**Tested** : 03 May 2024  
**Diagnosed** : 03 May 2024 - Wes Davis

**Gerdau - Mandak Metal Processors Ltd.,**  
 1 Railway St., P.O. Box 334  
 Selkirk, MB  
 CA R1A 2B3  
 Contact: Santiago Giraldo  
 santiago.giraldo@gerdau.com  
 T:  
 F: (204)482-8241

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.