



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH22M 146587-1250
Component
Front Left Wheel Hub
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		LH0282650	LH0279510	LH
Sample Date		Client Info		05 Dec 2023	05 Dec 2023	28 Aug 2023
Machine Age	hrs	Client Info		2000	1259	574
Oil Age	hrs	Client Info		1000	0	0
Filter Age	hrs	Client Info		1000	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		None	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>450	36	43	40
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<1	<1	1
Lead	ppm	ASTM D5185(m)	>4	0	<1	<1
Copper	ppm	ASTM D5185(m)	>75	5	10	20
Tin	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	VLITE	NONE	NONE

CONTAMINATION

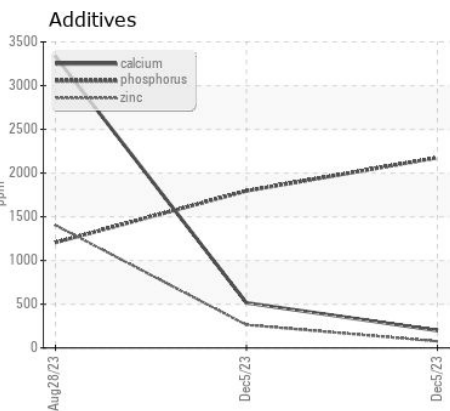
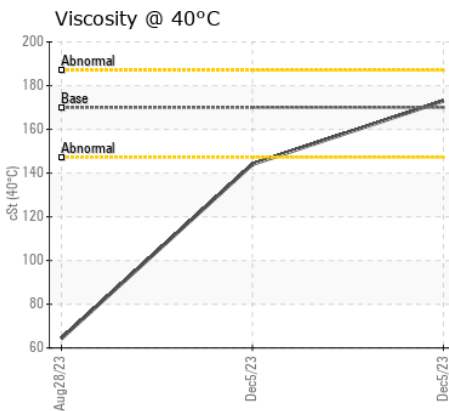
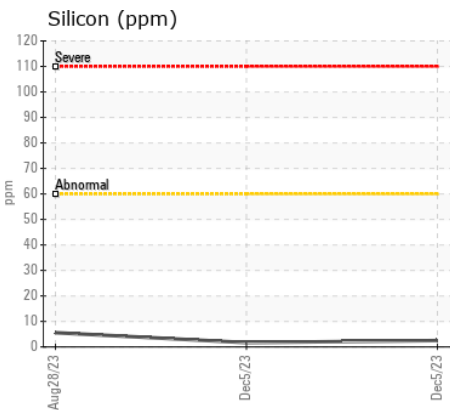
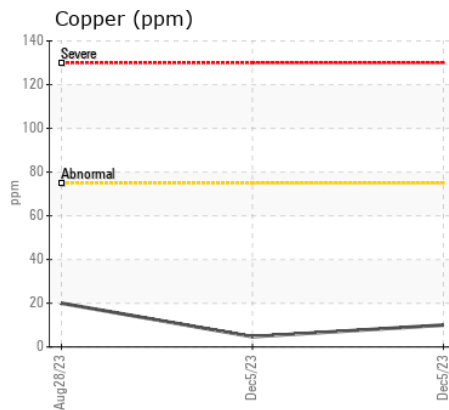
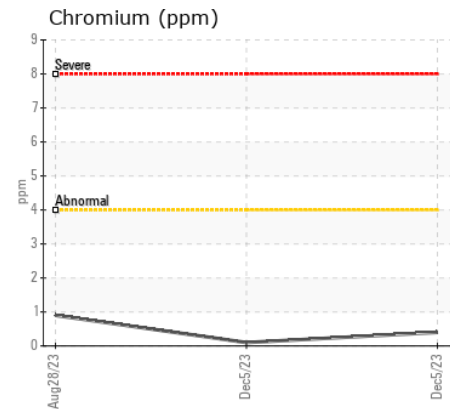
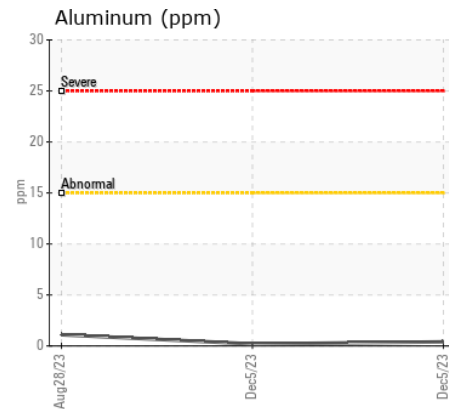
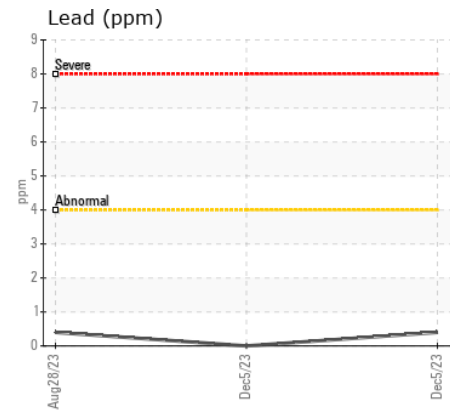
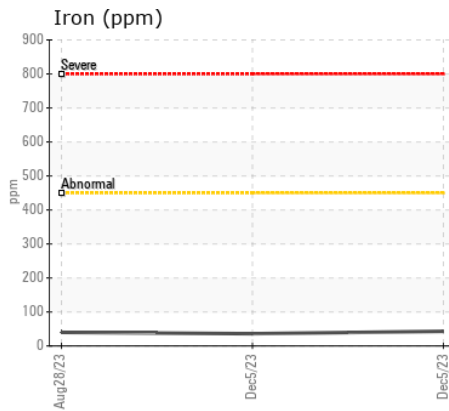
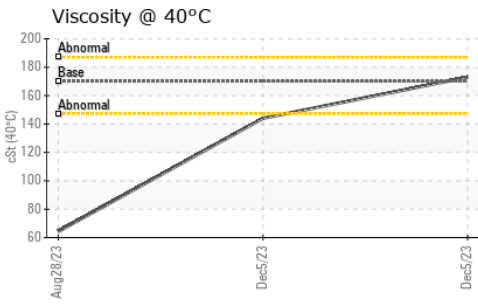
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	2	2	6
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	LIGHT
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*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		4	7	18
Boron	ppm	ASTM D5185(m)	0	5	13	101
Barium	ppm	ASTM D5185(m)	0	<1	1	2
Molybdenum	ppm	ASTM D5185(m)	0	0	0	<1
Manganese	ppm	ASTM D5185(m)	0	<1	<1	1
Magnesium	ppm	ASTM D5185(m)	<1	1	2	9
Calcium	ppm	ASTM D5185(m)	<1	199	516	3336
Phosphorus	ppm	ASTM D5185(m)	2143	2176	1796	1205
Zinc	ppm	ASTM D5185(m)	<1	76	264	1404
Sulfur	ppm	ASTM D5185(m)	23468	23822	20647	2798
Visc @ 40°C	cSt	ASTM D7279(m)	170	173	144	64.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0282650 **Received** : 29 Apr 2024
Lab Number : 02632045 **Tested** : 29 Apr 2024
Unique Number : 5773198 **Diagnosed** : 29 Apr 2024 - Wes Davis
Test Package : MOB 1

CONTENEUR ROSE INC.
 89 RUE MORANE
 LAVAL, QC
 CA H7M 1R5
 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: