



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(361220)
Machine Id
LIEBHERR LH50M 134706-1216
Component
Front Right Wheel Hub
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH	LH	LH0250096
Sample Date		Client Info		15 Feb 2024	12 Sep 2023	27 Mar 2023
Machine Age	hrs	Client Info		5100	4000	2020
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		None	None	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>325	35	40	35
Chromium	ppm	ASTM D5185(m)	>3	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	1	2	1
Lead	ppm	ASTM D5185(m)	>4	0	0	<1
Copper	ppm	ASTM D5185(m)	>75	3	4	4
Tin	ppm	ASTM D5185(m)	>3	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

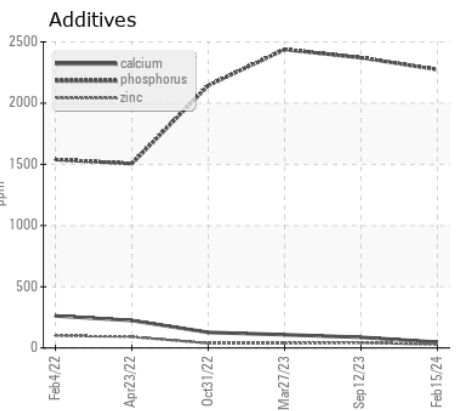
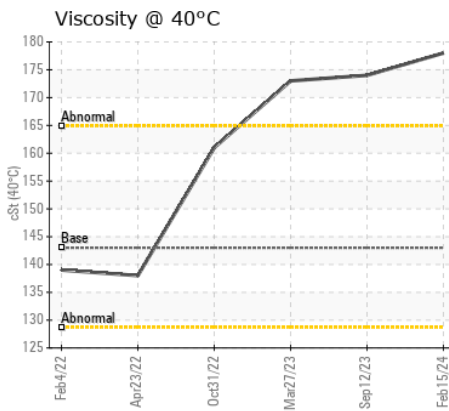
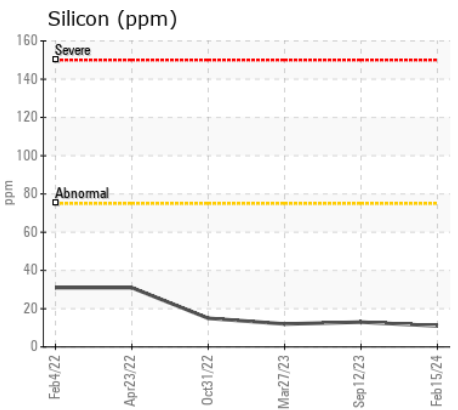
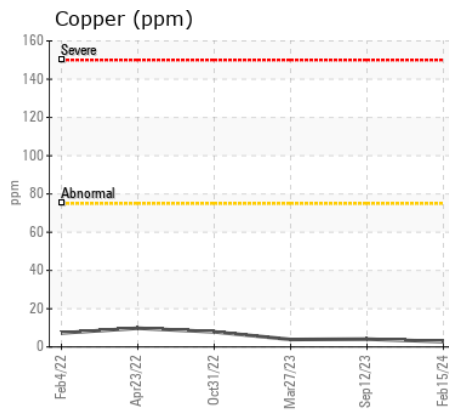
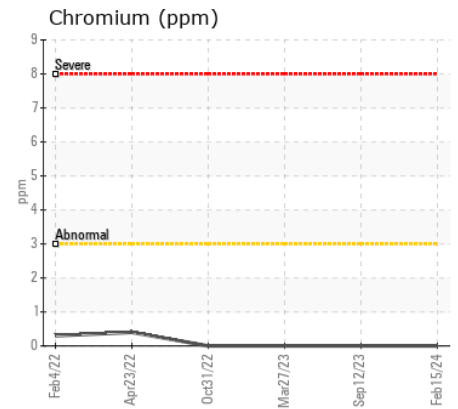
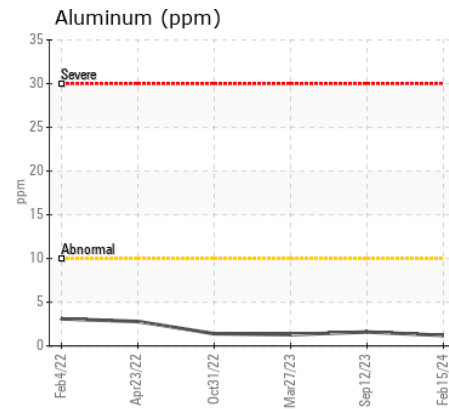
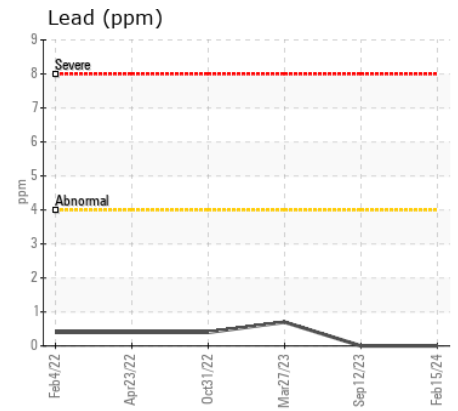
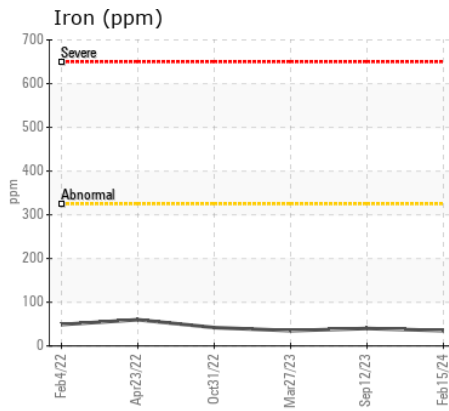
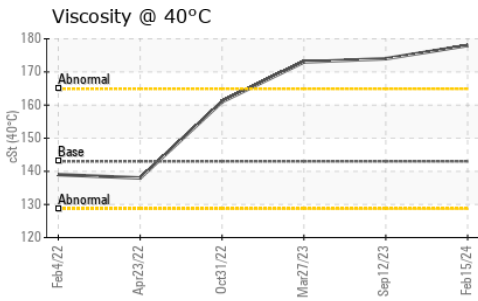
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	11	13	12
Potassium	ppm	ASTM D5185(m)	>20	2	2	1
Water		WC Method	>0.2	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*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>170	9	15	12
Boron	ppm	ASTM D5185(m)	400	1	3	3
Barium	ppm	ASTM D5185(m)	200	0	0	0
Molybdenum	ppm	ASTM D5185(m)	12	0	<1	<1
Manganese	ppm	ASTM D5185(m)		<1	2	2
Magnesium	ppm	ASTM D5185(m)	12	2	2	1
Calcium	ppm	ASTM D5185(m)	150	47	87	108
Phosphorus	ppm	ASTM D5185(m)	1650	2274	2371	2438
Zinc	ppm	ASTM D5185(m)	125	29	42	38
Sulfur	ppm	ASTM D5185(m)	22500	25744	25824	26604
Visc @ 40°C	cSt	ASTM D7279(m)	143	178	174	173



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH
Lab Number : 02616764
Unique Number : 5733874
Test Package : MOB 1
Received : 20 Feb 2024
Tested : 20 Feb 2024
Diagnosed : 20 Feb 2024 - Wes Davis

Industrial Metals
 550 Messier St.
 Winnipeg, MB
 CA R2J 0G5
 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: