



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(358361)
Machine Id
LIEBHERR LH40M 133820-1215
Component
Rear Left Wheel Hub
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289654	LH0239422	LH0227567
Sample Date		Client Info		10 Jun 2024	31 Aug 2022	09 Mar 2022
Machine Age	hrs	Client Info		2606	1001	509
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		None	None	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>650	35	18	37
Chromium	ppm	ASTM D5185(m)	>4	0	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>4	0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>4	0	<1	<1
Copper	ppm	ASTM D5185(m)	>60	22	24	17
Tin	ppm	ASTM D5185(m)	>4	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

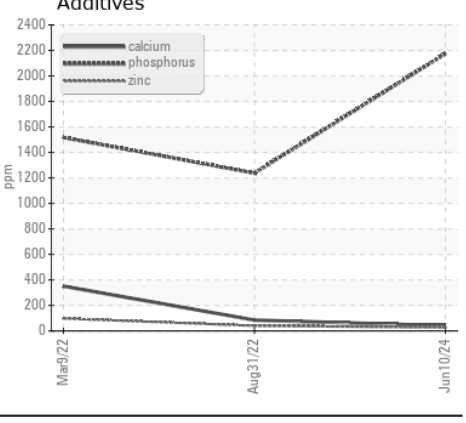
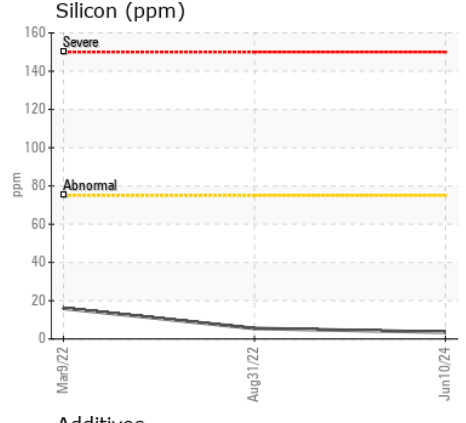
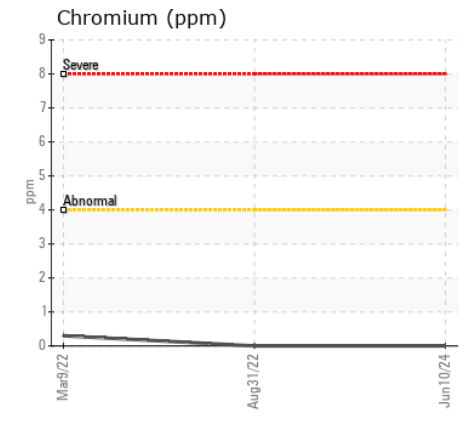
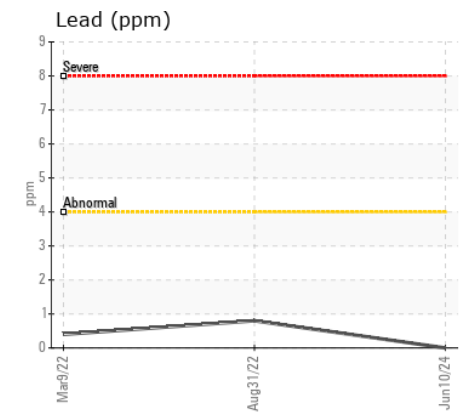
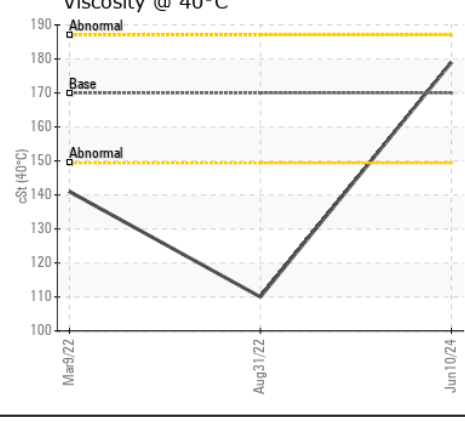
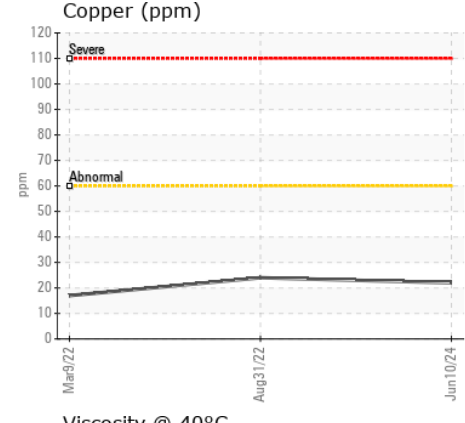
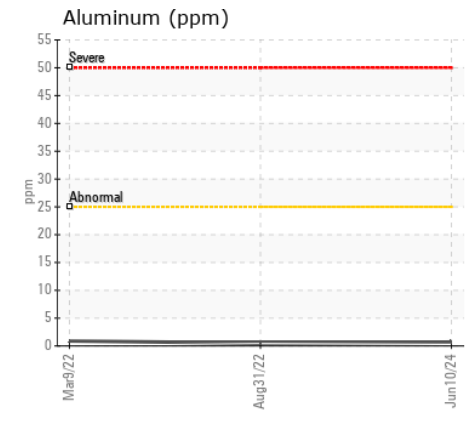
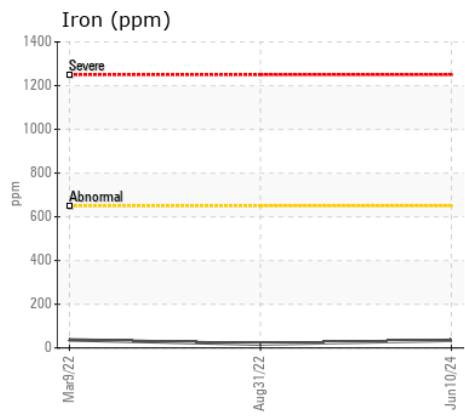
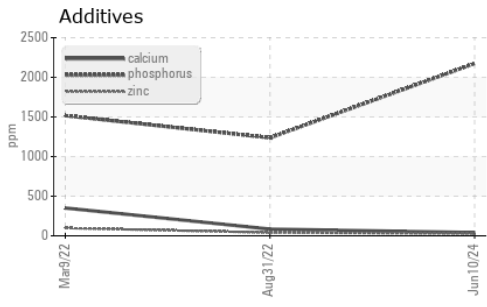
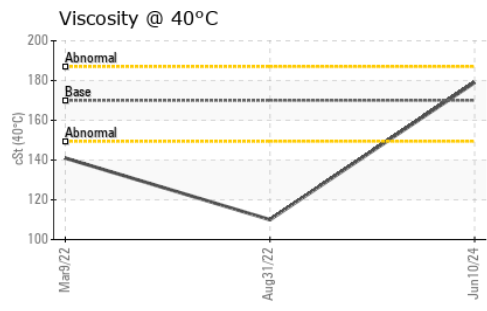
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	4	6	16
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	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

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	3	6
Boron	ppm	ASTM D5185(m)	0	25	242	9
Barium	ppm	ASTM D5185(m)	0	<1	<1	2
Molybdenum	ppm	ASTM D5185(m)	0	0	2	8
Manganese	ppm	ASTM D5185(m)	0	1	<1	1
Magnesium	ppm	ASTM D5185(m)	<1	1	2	2
Calcium	ppm	ASTM D5185(m)	<1	41	85	351
Phosphorus	ppm	ASTM D5185(m)	2143	2174	1237	1517
Zinc	ppm	ASTM D5185(m)	<1	27	40	98
Sulfur	ppm	ASTM D5185(m)	23468	24915	20366	18244
Visc @ 40°C	cSt	ASTM D7279(m)	170	179	110	141



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0289654 **Received** : 11 Jun 2024
Lab Number : 02641220 **Tested** : 11 Jun 2024
Unique Number : 5798759 **Diagnosed** : 11 Jun 2024 - Wes Davis
Test Package : MOB 1

METALOGICS INC.
 895 COLLINSON RD.
 DUNDAS, ON
 CA L9H 5E2
 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: