



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH30M 139284-1253
Component
Transmission (Manual)
Fluid
SHELL ROTELLA T4 15W40 (--- 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		LH0241875	LH0241863	LH0241863
Sample Date		Client Info		31 Oct 2023	07 Jun 2023	18 Apr 2023
Machine Age	hrs	Client Info		2739	1668	1142
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)	>200	15	23	29
Chromium	ppm	ASTM D5185(m)	>5	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>7	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	1	3	2
Lead	ppm	ASTM D5185(m)	>45	<1	<1	1
Copper	ppm	ASTM D5185(m)	>225	9	17	30
Tin	ppm	ASTM D5185(m)	>10	<1	<1	1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	LIGHT	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	VLITE

CONTAMINATION

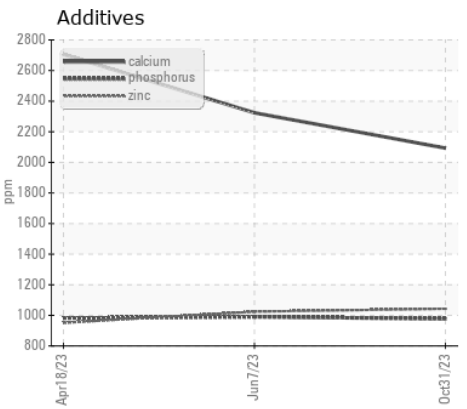
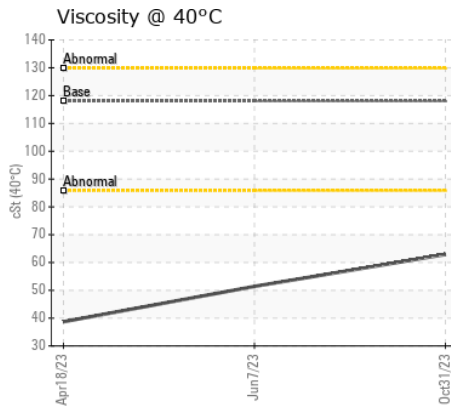
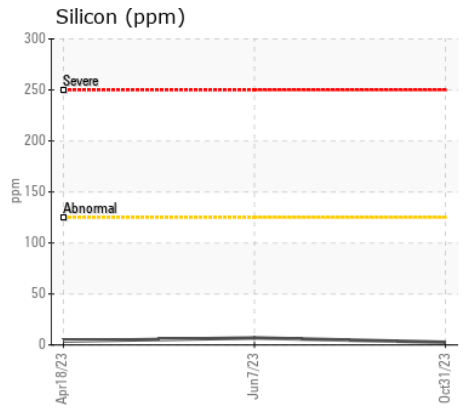
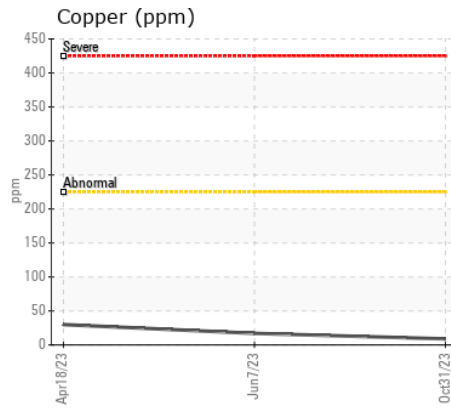
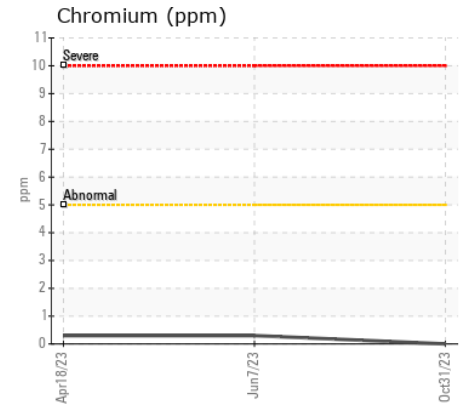
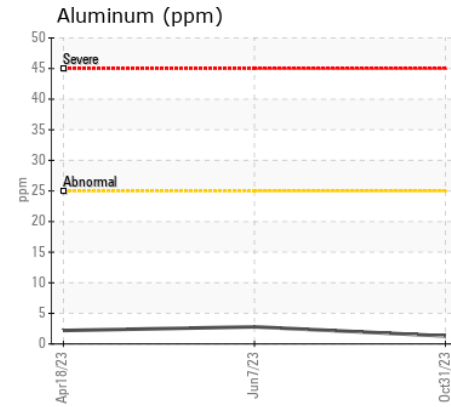
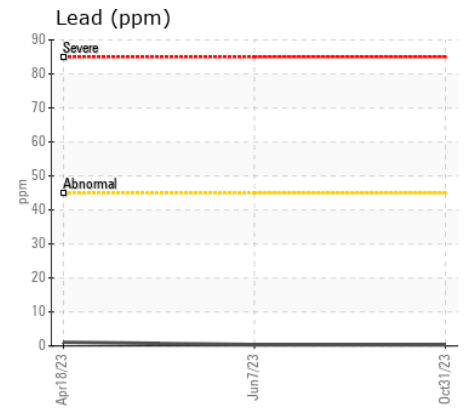
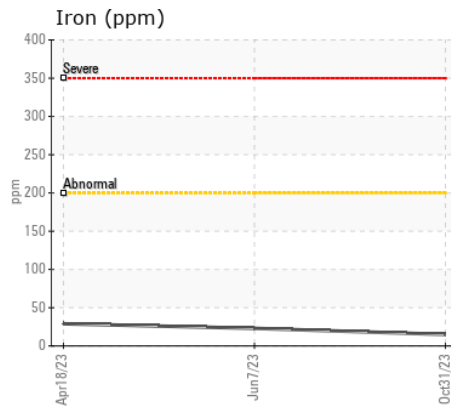
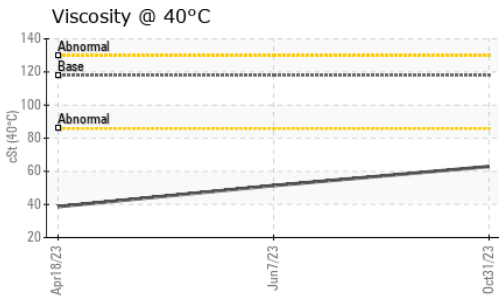
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>125	3	7	4
Potassium	ppm	ASTM D5185(m)	>20	5	5	3
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of fluid.
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		5	14	23
Boron	ppm	ASTM D5185(m)		154	136	107
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		4	18	34
Manganese	ppm	ASTM D5185(m)		4	13	22
Magnesium	ppm	ASTM D5185(m)		15	13	8
Calcium	ppm	ASTM D5185(m)		2093	2324	2706
Phosphorus	ppm	ASTM D5185(m)		977	990	982
Zinc	ppm	ASTM D5185(m)		1043	1024	951
Sulfur	ppm	ASTM D5185(m)		3863	4180	5436
Visc @ 40°C	cSt	ASTM D7279(m)	118	62.9	51.4	38.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0241875 **Received** : 16 Jan 2024
Lab Number : 02609106 **Diagnosed** : 17 Jan 2024
Unique Number : 5710192 **Diagnostician** : Kevin Marson
Test Package : MOBCE (Additional Tests: Visual)

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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