



LIEBHERR

OIL ANALYSIS REPORT



Area

(346464)

Machine Id

LIEBHERR LH30M 124535-1253

Component

Hydraulic System

Fluid

{not provided} (--- GAL)

WEAR

ABNORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0286585	LH0269644	LH0224225
Sample Date		Client Info		16 Mar 2024	18 Oct 2023	04 Apr 2022
Machine Age	hrs	Client Info		6121	5046	2025
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		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ		ASTM D8184*	>40	0	0	---
Iron	ppm	ASTM D5185(m)	>50	▲ 79	▲ 71	48
Chromium	ppm	ASTM D5185(m)	>5	1	1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>2	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<1	2	<1
Copper	ppm	ASTM D5185(m)	>10	6	6	4
Tin	ppm	ASTM D5185(m)	>2	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

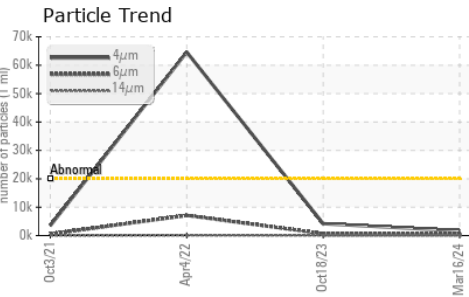
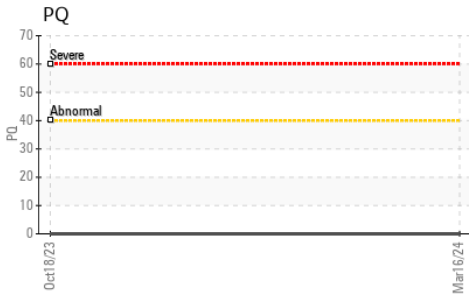
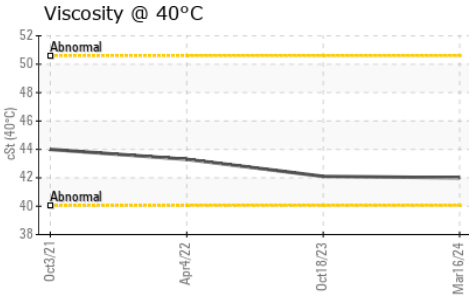
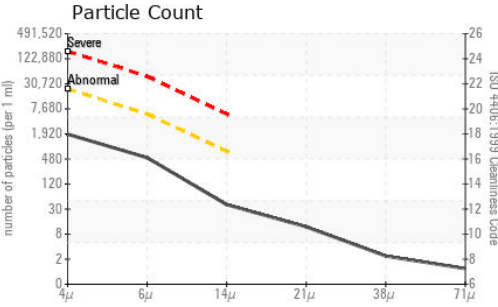
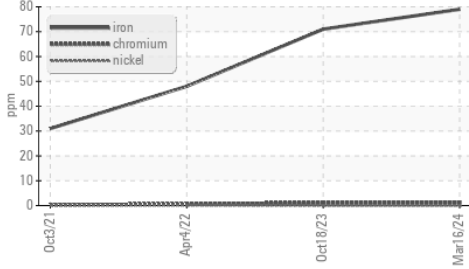
Silicon	ppm	ASTM D5185(m)	>17	1	2	2
Potassium	ppm	ASTM D5185(m)	>20	2	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	1655	4191	▲ 64602
Particles >6µm		ASTM D7647	>5000	453	671	● 7110
Particles >14µm		ASTM D7647	>640	34	15	64
Particles >21µm		ASTM D7647	>160	10	2	11
Particles >38µm		ASTM D7647	>40	2	0	2
Particles >71µm		ASTM D7647	>10	1	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	18/16/12	19/17/11	▲ 23/20/13
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	VLITE
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

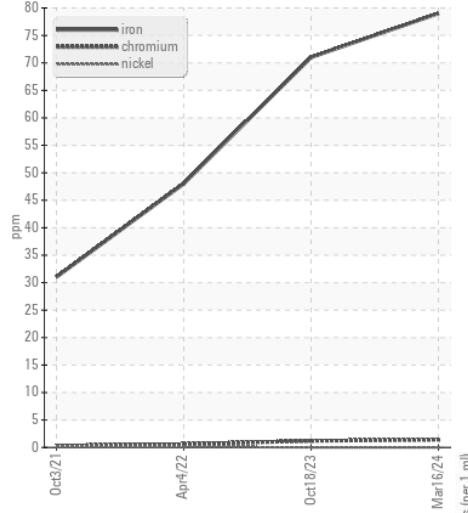
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		4	4	2
Boron	ppm	ASTM D5185(m)		2	2	2
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		9	8	6
Calcium	ppm	ASTM D5185(m)		1245	1237	1355
Phosphorus	ppm	ASTM D5185(m)		539	531	606
Zinc	ppm	ASTM D5185(m)		650	646	672
Sulfur	ppm	ASTM D5185(m)		2992	3035	3352
Visc @ 40°C	cSt	ASTM D7279(m)		42.0	42.1	43.3

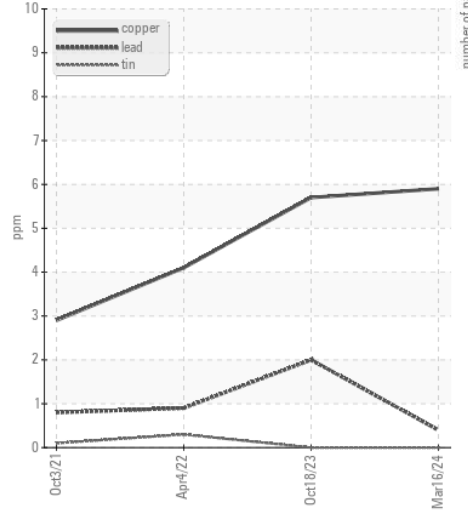
▲ Ferrous Alloys



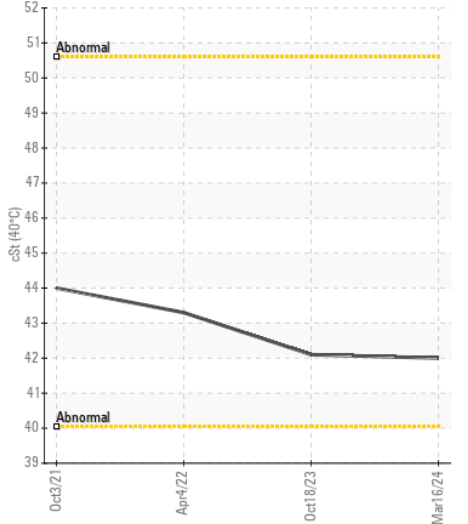
▲ Ferrous Alloys



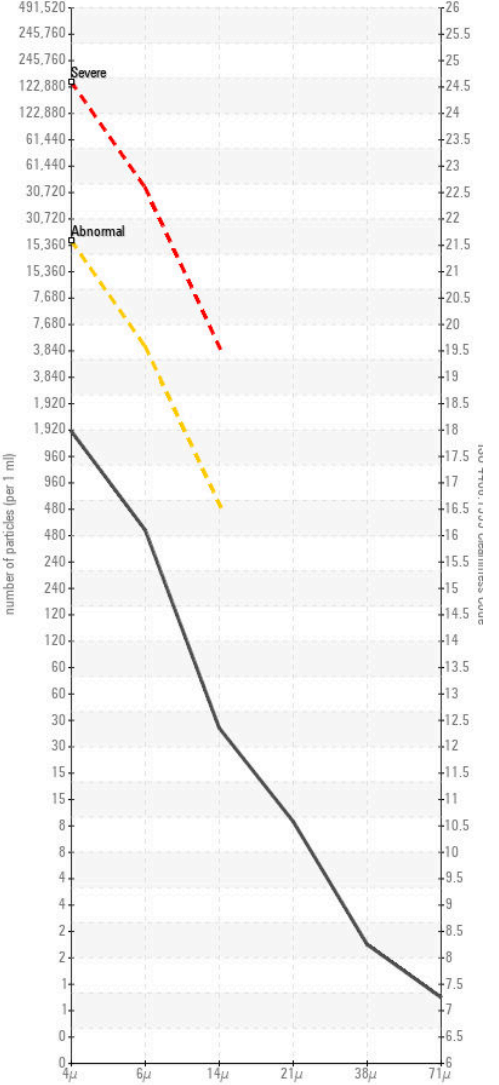
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0286585 **Received** : 05 Apr 2024
Lab Number : 02627022 **Tested** : 08 Apr 2024
Unique Number : 5760154 **Diagnosed** : 08 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)

JOHN ROSS & SONS LTD.
 85 GLASSY AVENUE
 TRURO, NS
 CA B2N 6Z1
 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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