



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50M 1203-75955
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. 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		LH0268403	LH0258884	---
Sample Date		Client Info		09 Jul 2024	12 Mar 2024	---
Machine Age	hrs	Client Info		1517	1517	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	19	24	---
Chromium	ppm	ASTM D5185m	>40	<1	1	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>5	<1	<1	---
Lead	ppm	ASTM D5185m	>5	0	3	---
Copper	ppm	ASTM D5185m	>15	3	6	---
Tin	ppm	ASTM D5185m	>5	0	3	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

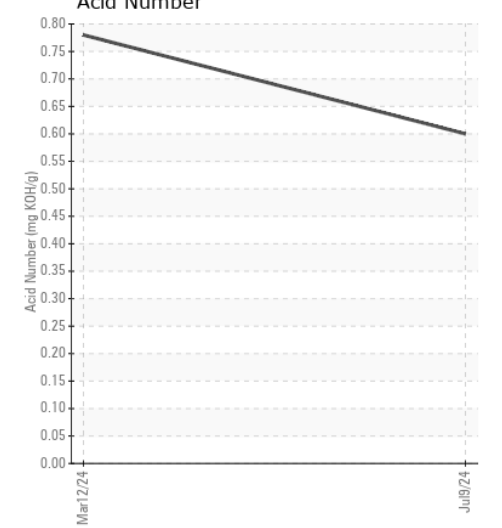
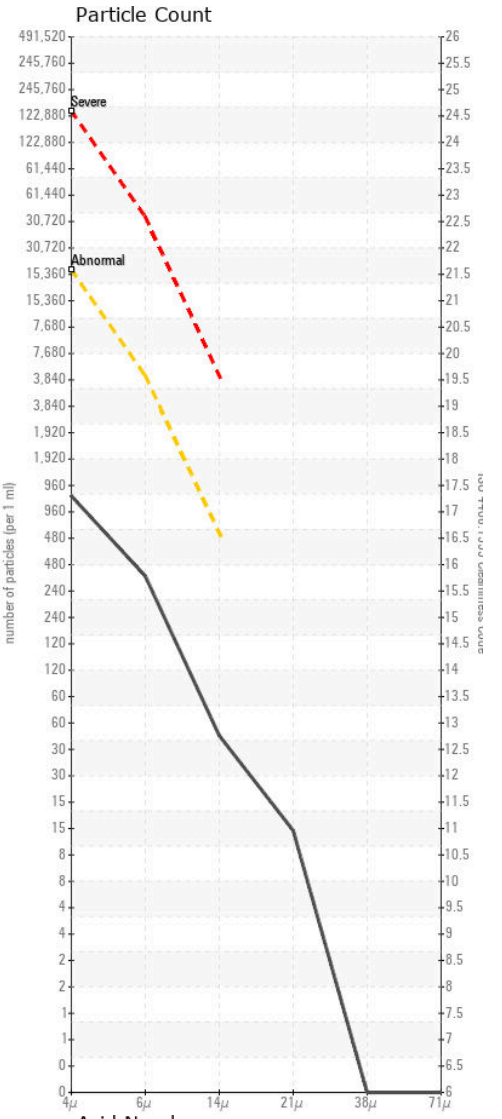
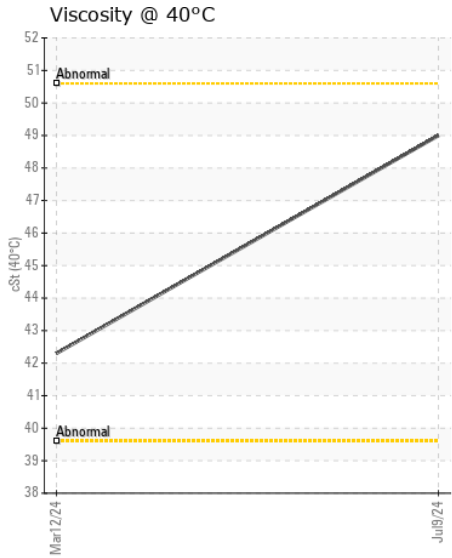
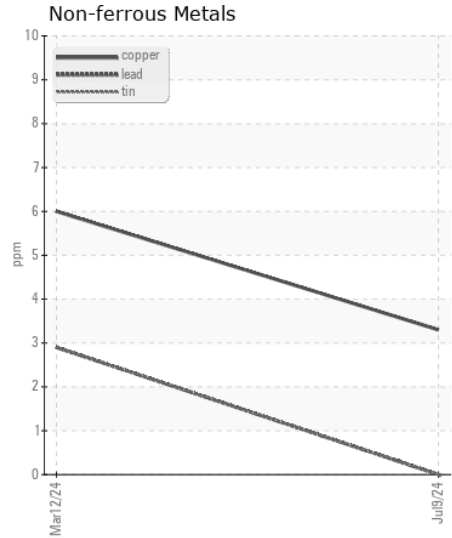
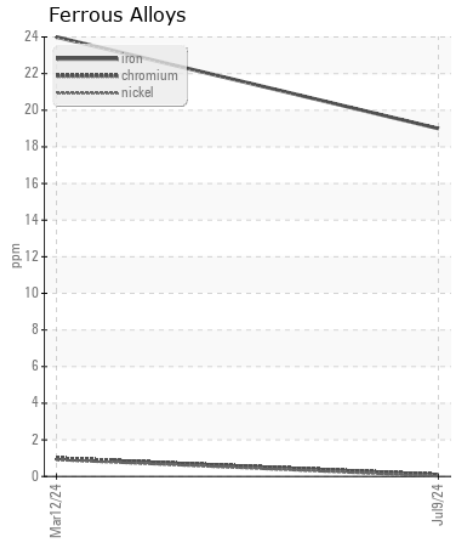
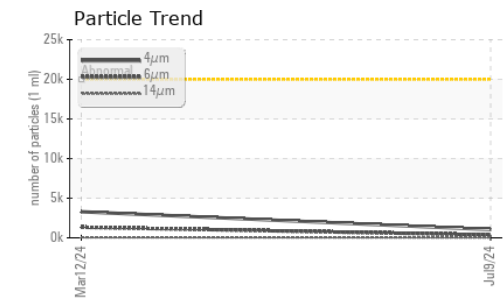
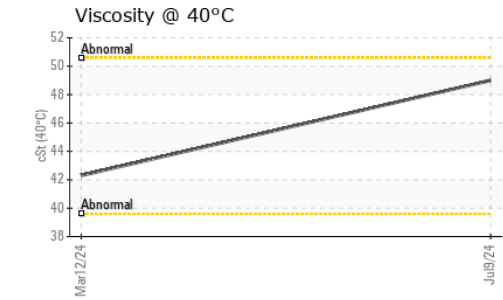
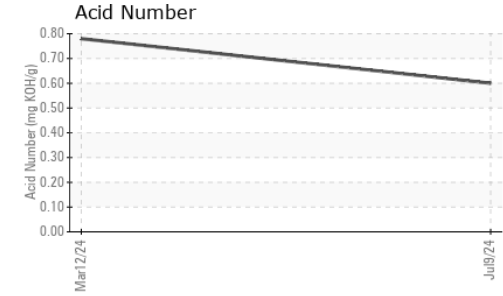
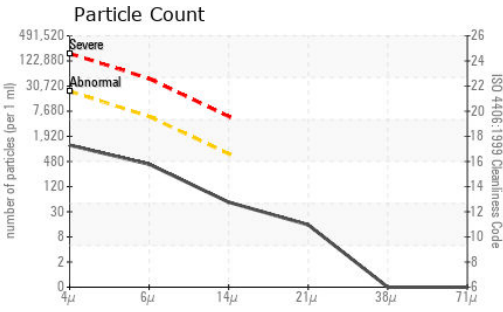
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	2	3	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>20000	1036	3292	---
Particles >6µm		ASTM D7647	>5000	363	1335	---
Particles >14µm		ASTM D7647	>640	45	61	---
Particles >21µm		ASTM D7647	>160	13	8	---
Particles >38µm		ASTM D7647	>40	0	1	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	17/16/13	19/18/13	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	3	---
Boron	ppm	ASTM D5185m		0	2	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	<1	---
Manganese	ppm	ASTM D5185m		<1	1	---
Magnesium	ppm	ASTM D5185m		11	2	---
Calcium	ppm	ASTM D5185m		496	771	---
Phosphorus	ppm	ASTM D5185m		478	451	---
Zinc	ppm	ASTM D5185m		537	495	---
Sulfur	ppm	ASTM D5185m		2618	3204	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.60	0.78	---
Visc @ 40°C	cSt	ASTM D445		49.0	42.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0268403
Lab Number : 06238354
Unique Number : 11127188
Test Package : CONST

Received : 16 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 17 Jul 2024 - Wes Davis

NORBORD MN
 4409 NORTHWOOD RD NW
 SOLWAY, MN
 US 56678
 Contact: RIC BOWMAN
 ric.bowman@norbord.com
 T: (218)444-0909
 F: (218)751-2075

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)