



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L580 080458-1760

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LHMC131962	---	---
Sample Date		Client Info		23 May 2024	---	---
Machine Age	hrs	Client Info		88	---	---
Oil Age	hrs	Client Info		88	---	---
Filter Age	hrs	Client Info		88	---	---
Oil Changed		Client Info		Not Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	3	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	2	---	---
Lead	ppm	ASTM D5185m	>10	1	---	---
Copper	ppm	ASTM D5185m	>75	1	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

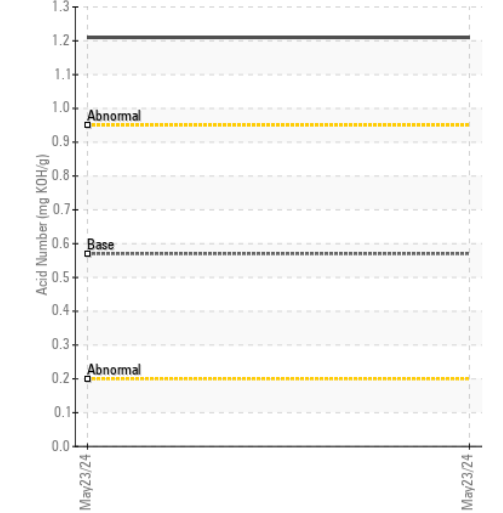
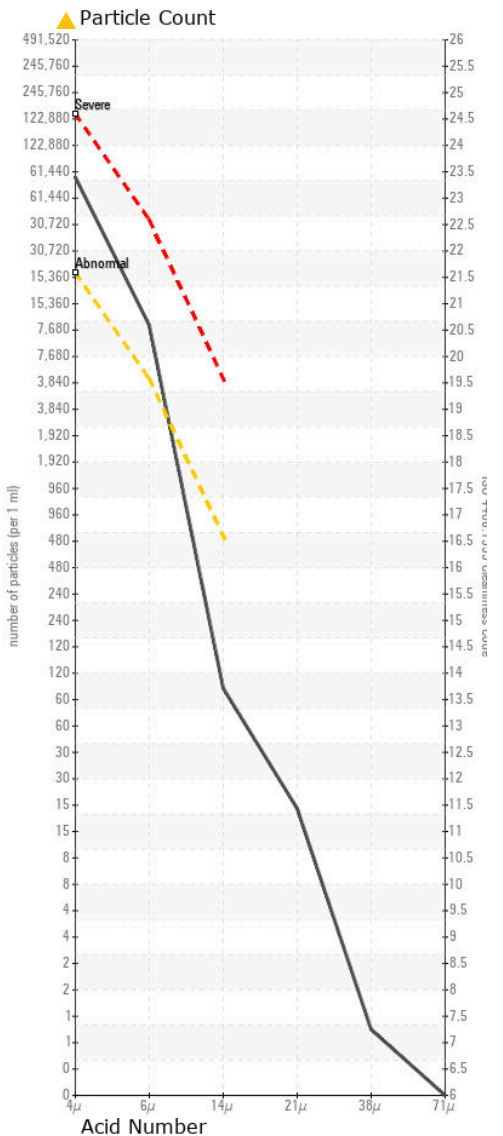
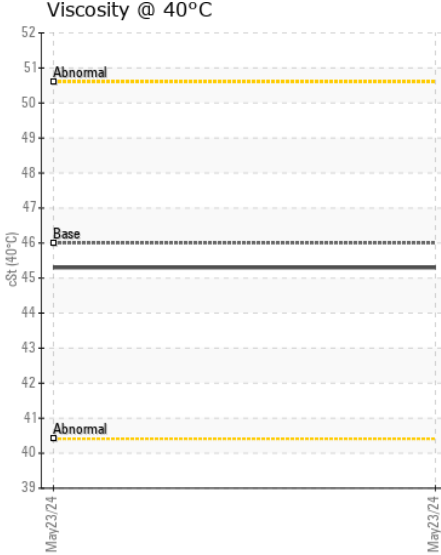
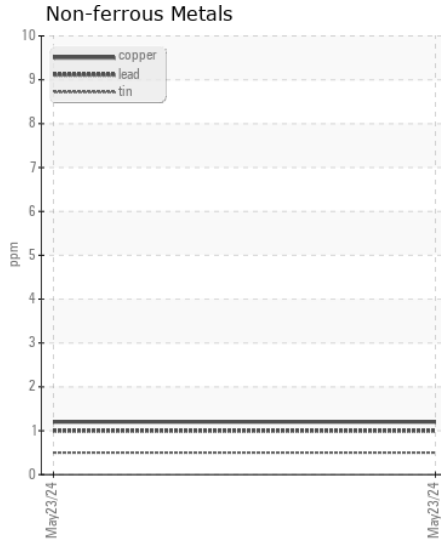
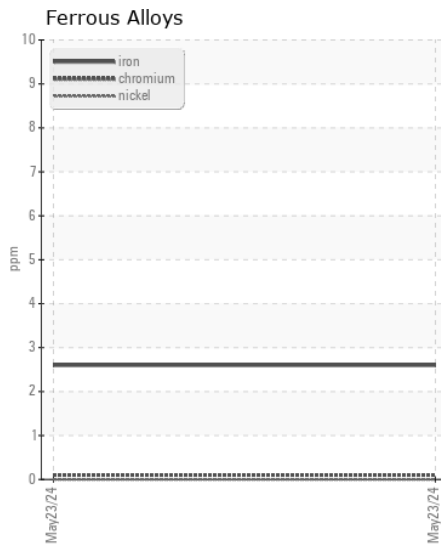
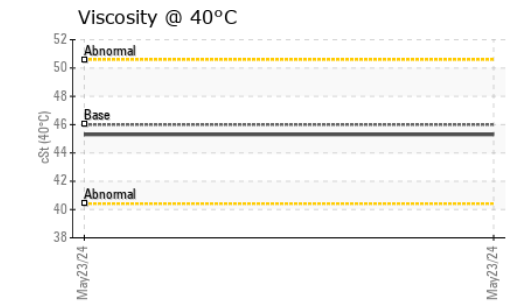
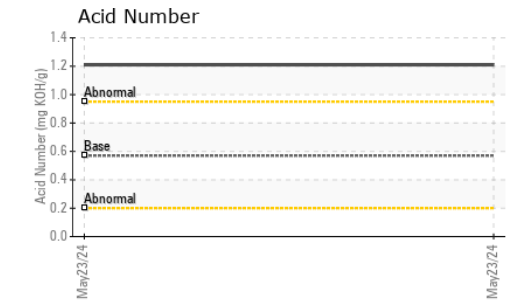
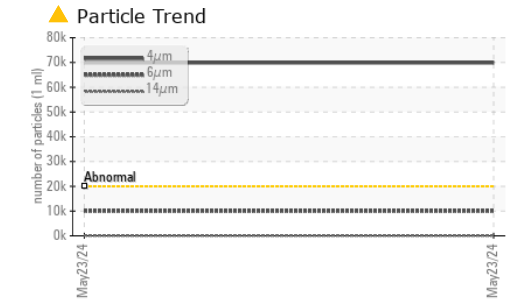
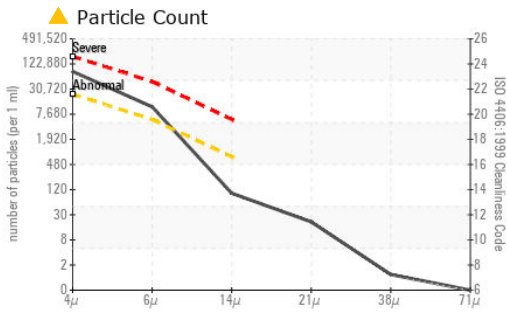
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>20000	▲ 69870	---	---
Particles >6µm		ASTM D7647	>5000	▲ 10041	---	---
Particles >14µm		ASTM D7647	>640	87	---	---
Particles >21µm		ASTM D7647	>160	18	---	---
Particles >38µm		ASTM D7647	>40	1	---	---
Particles >71µm		ASTM D7647	>10	0	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/21/14	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	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		0	---	---
Boron	ppm	ASTM D5185m	5	0	---	---
Barium	ppm	ASTM D5185m	5	<1	---	---
Molybdenum	ppm	ASTM D5185m	5	1	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	25	10	---	---
Calcium	ppm	ASTM D5185m	200	793	---	---
Phosphorus	ppm	ASTM D5185m	300	511	---	---
Zinc	ppm	ASTM D5185m	370	610	---	---
Sulfur	ppm	ASTM D5185m	2500	3183	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	1.21	---	---
Visc @ 40°C	cSt	ASTM D445	46	45.3	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LHMC131962 **Received** : 30 May 2024
Lab Number : 06195355 **Tested** : 31 May 2024
Unique Number : 11057478 **Diagnosed** : 01 Jun 2024 - Don Baldrige
Test Package : MOB 2

AMERICAN STATE EQUIPMENT CO.
 2055 SOUTH 108TH STREET
 MILWAUKEE, WI
 US 53227
 Contact: RAY SCHMIDT
 RSCHMIDT@AMSTATE.COM
 T: (414)234-0854
 F: (414)541-1892

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)