



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR A918 110890-1184**  
Component  
**Swing Drive**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of water entry. The oil 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		<b>LH0258447</b>	LHMC130924	---
Sample Date		Client Info		<b>01 May 2024</b>	16 Sep 2023	---
Machine Age	hrs	Client Info		<b>6322</b>	3968	---
Oil Age	hrs	Client Info		<b>6322</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>350	<b>120</b>	277	---
Chromium	ppm	ASTM D5185m	>15	<b>&lt;1</b>	3	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>300	<b>3</b>	15	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	▲ HEAVY	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

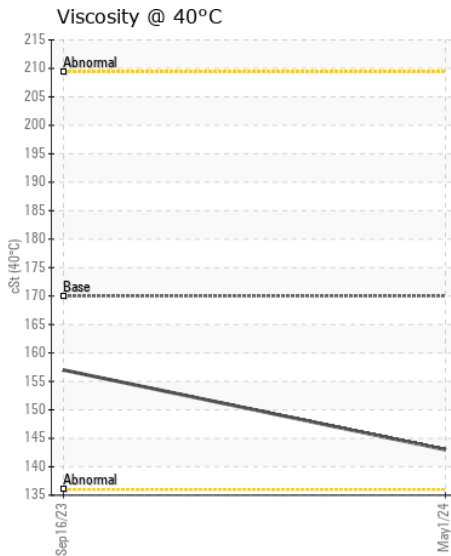
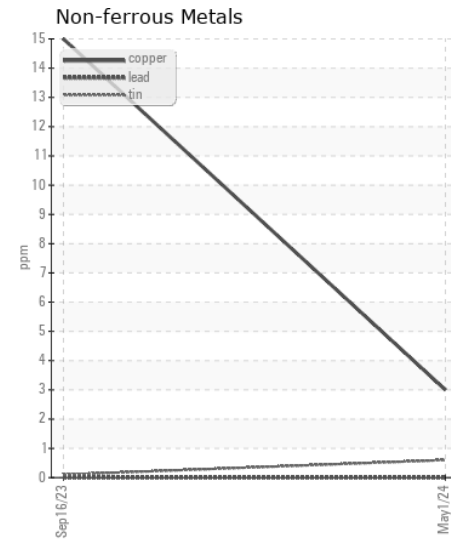
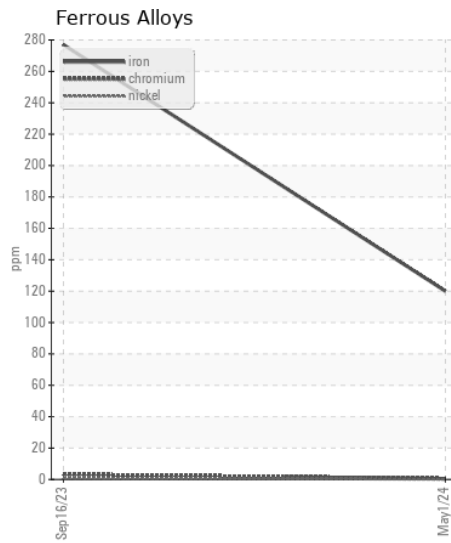
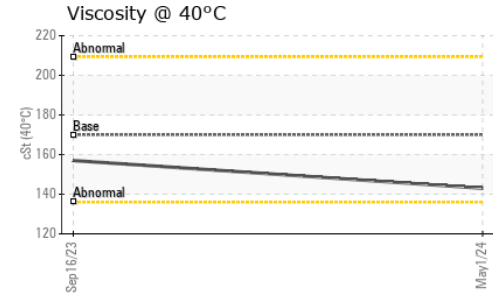
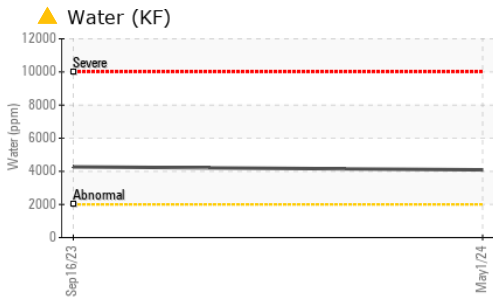
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>1</b>	3	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Water	%	ASTM D6304	>0.2	▲ <b>0.409</b>	▲ 0.427	---
ppm Water	ppm	ASTM D6304	>2000	▲ <b>4090</b>	▲ 4270	---
Silt	scalar	*Visual	NONE	<b>MODER</b>	MODER	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>HAZY</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ <b>0.2%</b>	▲ 0.2%	---

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	---
Boron	ppm	ASTM D5185m	0	<b>62</b>	4	---
Barium	ppm	ASTM D5185m	0	<b>1</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	---
Magnesium	ppm	ASTM D5185m	<1	<b>2</b>	<1	---
Calcium	ppm	ASTM D5185m	<1	<b>29</b>	10	---
Phosphorus	ppm	ASTM D5185m	2143	<b>916</b>	652	---
Zinc	ppm	ASTM D5185m	<1	<b>11</b>	53	---
Sulfur	ppm	ASTM D5185m	23468	<b>21085</b>	21655	---
Visc @ 40°C	cSt	ASTM D445	170	<b>143</b>	157	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0258447 **Received** : 13 May 2024  
**Lab Number** : 06177960 **Tested** : 15 May 2024  
**Unique Number** : 11029286 **Diagnosed** : 15 May 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: KF )

**UNITED SCRAP**  
 1545 S CICERO AVE  
 CHICAGO, IL  
 US 60804  
 Contact:

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)

T:  
F: