



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**145797-1218 LIEBHERR LH80M 145797-1218**  
Component  
**Swing Drive**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0257719</b>	---	---
Sample Date		Client Info		<b>09 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1579</b>	---	---
Oil Age	hrs	Client Info		<b>500</b>	---	---
Filter Age	hrs	Client Info		<b>500</b>	---	---
Oil Changed		Client Info		<b>Not Changed</b>	---	---
Filter Changed		Client Info		<b>Not Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>350	<b>302</b>	---	---
Chromium	ppm	ASTM D5185m	>15	<b>4</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>5	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>300	<b>164</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>10</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

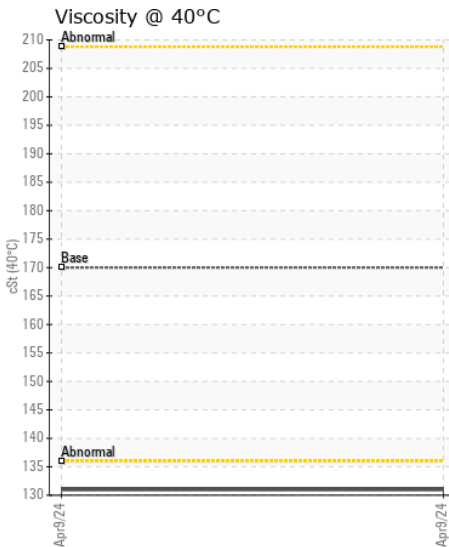
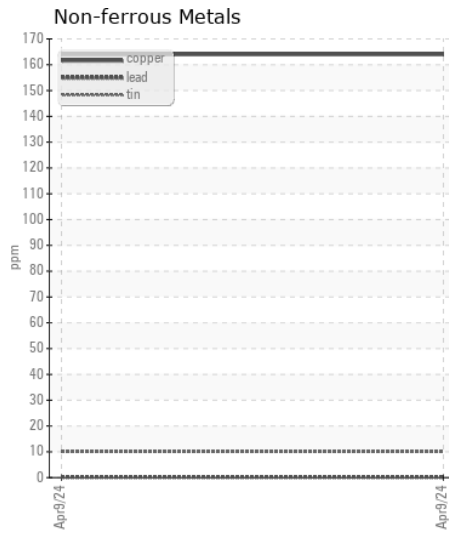
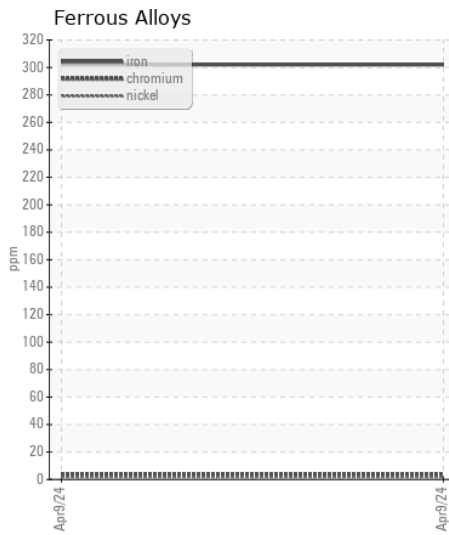
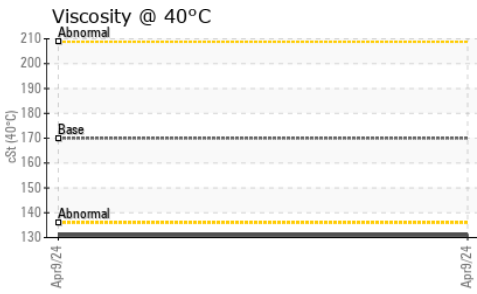
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>3</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Boron	ppm	ASTM D5185m	0	<b>203</b>	---	---
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185m	0	<b>7</b>	---	---
Manganese	ppm	ASTM D5185m	0	<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m	<1	<b>41</b>	---	---
Calcium	ppm	ASTM D5185m	<1	<b>91</b>	---	---
Phosphorus	ppm	ASTM D5185m	2143	<b>2242</b>	---	---
Zinc	ppm	ASTM D5185m	<1	<b>64</b>	---	---
Sulfur	ppm	ASTM D5185m	23468	<b>19140</b>	---	---
Visc @ 40°C	cSt	ASTM D445	170	<b>131</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0257719  
**Lab Number** : 06215153  
**Unique Number** : 11088017  
**Test Package** : CONST

**TEXAS PORT RECYCLING - HOUSTON PORT**  
 8945 MANCHESTER ST  
 HOUSTON, TX  
 US 77012  
 Contact: Dale Shaw  
 dale.shaw@tmrecycling.com

**Received** : 19 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Sean Felton

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: (713)921-5545