



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id  
**LIEBHERR HS8100 NOUNITLH0290892**  
Component  
**2 Winch**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 75W90 Gear Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. Please note that this is a corrected copy for laboratory data updates.

### WEAR

All component wear rates are normal.

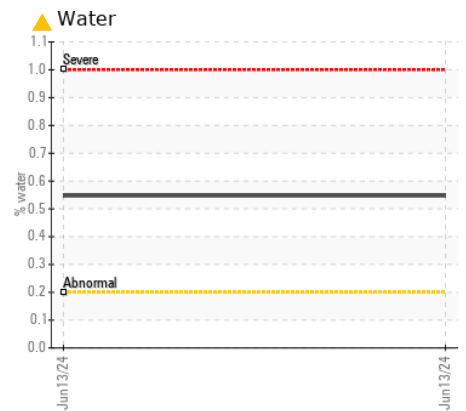
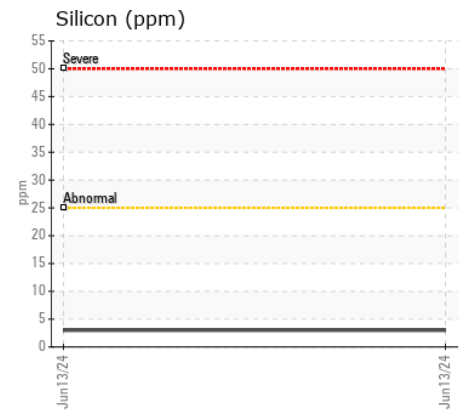
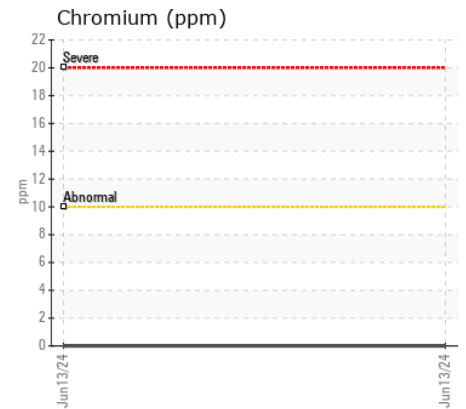
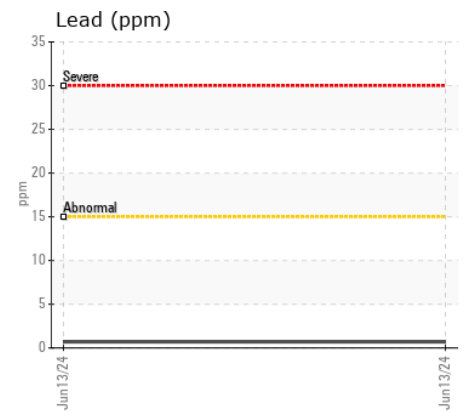
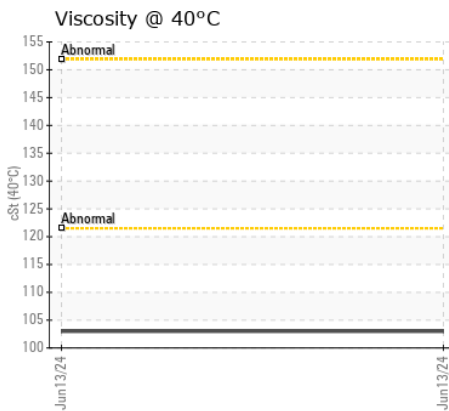
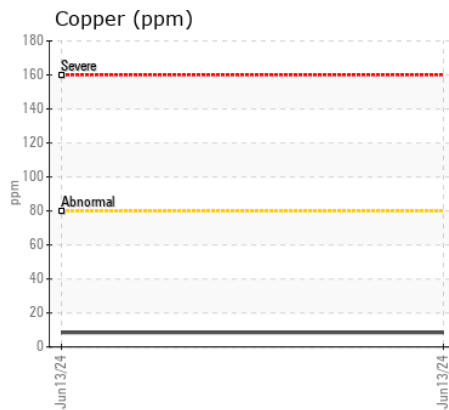
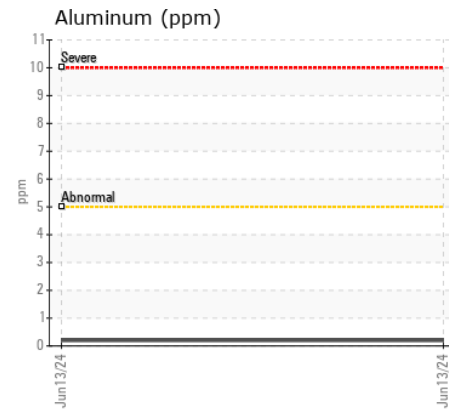
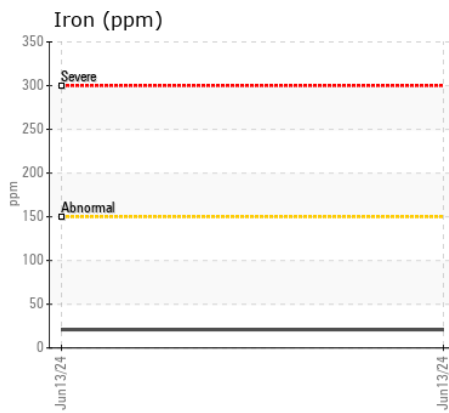
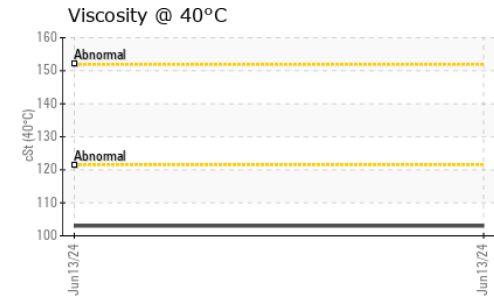
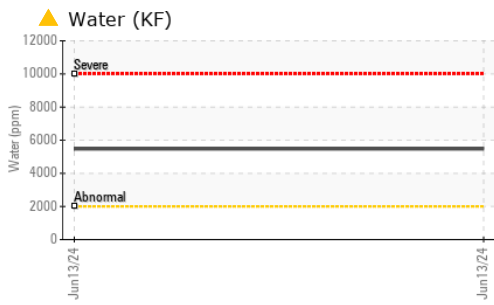
### CONTAMINATION

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

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0290892	---	---
Sample Date		Client Info		13 Jun 2024	---	---
Machine Age	hrs	Client Info		8567	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185(m)	>150	21	---	---
Chromium	ppm	ASTM D5185(m)	>10	0	---	---
Nickel	ppm	ASTM D5185(m)	>10	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		<1	---	---
Aluminum	ppm	ASTM D5185(m)	>5	<1	---	---
Lead	ppm	ASTM D5185(m)	>15	<1	---	---
Copper	ppm	ASTM D5185(m)	>80	8	---	---
Tin	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	3	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Water	%	ASTM D6304*	>0.2	▲ 0.547	---	---
ppm Water	ppm	ASTM D6304*	>2000	▲ 5476	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	▲ WGOIL	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	▲ .5%	---	---
Sodium	ppm	ASTM D5185(m)		4	---	---
Boron	ppm	ASTM D5185(m)		88	---	---
Barium	ppm	ASTM D5185(m)		6	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		3	---	---
Calcium	ppm	ASTM D5185(m)		28	---	---
Phosphorus	ppm	ASTM D5185(m)		1163	---	---
Zinc	ppm	ASTM D5185(m)		63	---	---
Sulfur	ppm	ASTM D5185(m)		20760	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		103	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0290892  
**Lab Number** : 02642423  
**Unique Number** : 5799962  
**Test Package** : MOB 1 ( Additional Tests: KF )  
**Received** : 17 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Kevin Marson

**Erie Drage Lines**  
 16 St George St.  
 Aylmer, ON  
 CA N5H 2M1  
 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.

T:  
F: