



# OIL ANALYSIS REPORT

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

Machine Id  
**LIEBHERR LR-1400 CR-4406 (S/N 000035-073)**

Component  
**Pump Drive**

Fluid  
**GEAR OIL ISO 220 (--- GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## WEAR

All component wear rates are normal.

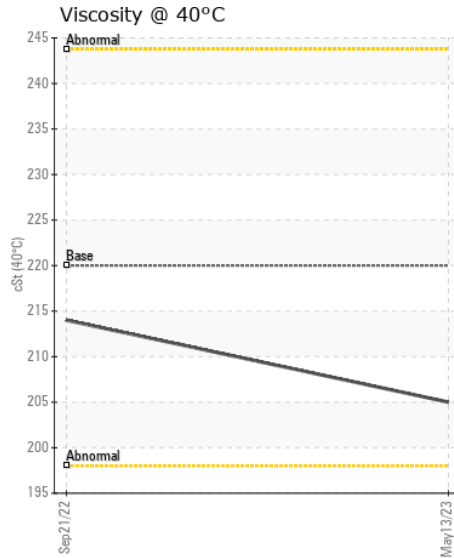
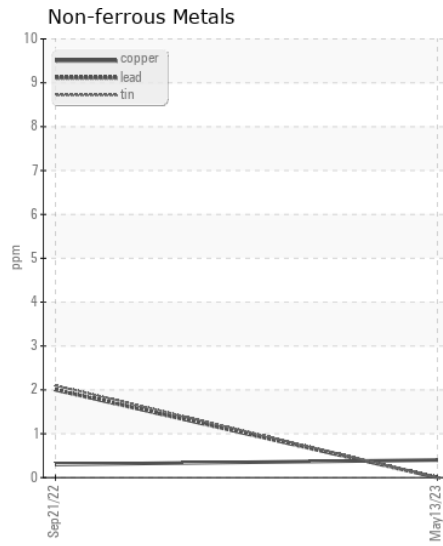
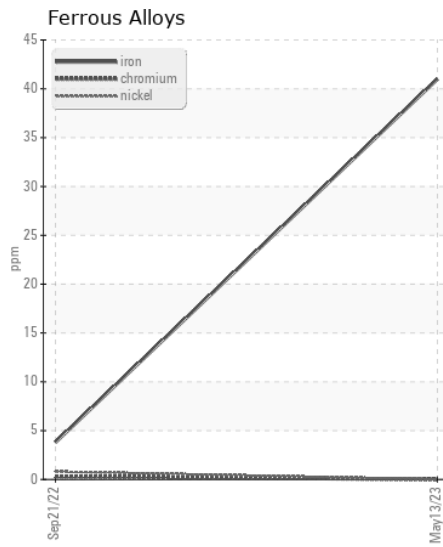
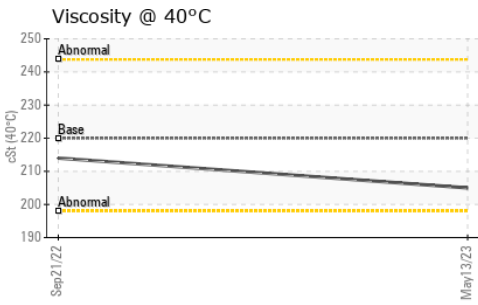
## CONTAMINATION

There is no indication of any contamination in the oil. Sample is layered with different type/density oil.

## FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0751835</b>	WC0704537	---
Sample Date		Client Info		<b>13 May 2023</b>	21 Sep 2022	---
Machine Age	hrs	Client Info		<b>29087</b>	28425	---
Oil Age	hrs	Client Info		<b>1000</b>	500	---
Filter Age	hrs	Client Info		<b>1000</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Not Changd	---
Filter Changed		Client Info		<b>Changed</b>	Not Changd	---
Sample Status				<b>ATTENTION</b>	NORMAL	---
Iron	ppm	ASTM D5185m	>500	<b>41</b>	4	---
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	---
Lead	ppm	ASTM D5185m		<b>0</b>	2	---
Copper	ppm	ASTM D5185m	>35	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	>4	<b>0</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silicon	ppm	ASTM D5185m	>75	<b>7</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	10	---
Water	%	ASTM D6304	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>SOLID</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---
Sodium	ppm	ASTM D5185m		<b>2</b>	2	---
Boron	ppm	ASTM D5185m	50	<b>24</b>	18	---
Barium	ppm	ASTM D5185m	15	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	50	<b>0</b>	6	---
Calcium	ppm	ASTM D5185m	50	<b>17</b>	6	---
Phosphorus	ppm	ASTM D5185m	350	<b>550</b>	970	---
Zinc	ppm	ASTM D5185m	100	<b>7</b>	4	---
Sulfur	ppm	ASTM D5185m	12500	<b>9185</b>	2618	---
Visc @ 40°C	cSt	ASTM D445	220	<b>205</b>	214	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0751835 **Received** : 16 May 2023  
**Lab Number** : 05848899 **Tested** : 19 May 2023  
**Unique Number** : 10473006 **Diagnosed** : 19 May 2023 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: KF )

**BUCKNER HEAVY LIFT**

4732 NC 54 EAST  
GRAHAM, NC  
US 27253-9215

Contact: MICHAEL LAWSON  
michaell@bucknercompanies.com

T: (336)376-8888  
F: (336)376-4090

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)