



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**LIEBHERR 1400 CR4415 - 4.1 (S/N 074-414)**  
 Component  
**Winch**  
 Fluid  
**GEAR OIL ISO 220 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0873457	---	---
Sample Date		Client Info		05 Apr 2024	---	---
Machine Age	hrs	Client Info		11100	---	---
Oil Age	hrs	Client Info		1000	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	49	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>5	0	---	---
Lead	ppm	ASTM D5185m	>15	0	---	---
Copper	ppm	ASTM D5185m	>80	0	---	---
Tin	ppm	ASTM D5185m		0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

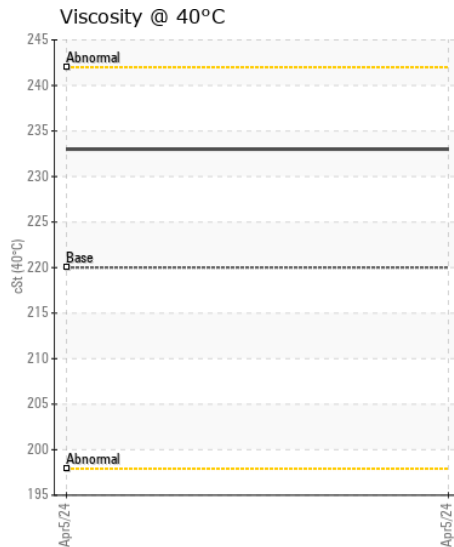
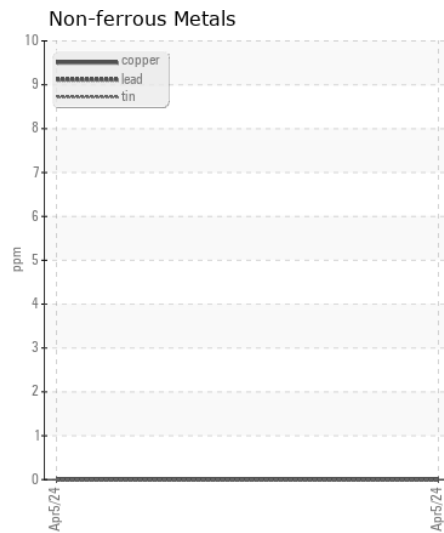
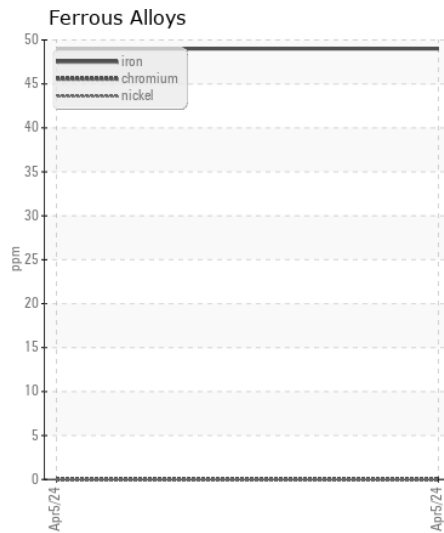
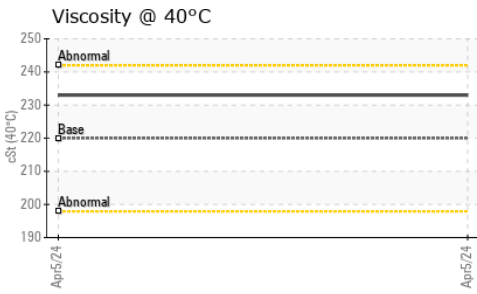
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	12	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	MODER	---	---
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	>0.2	NEG	---	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m	50	0	---	---
Barium	ppm	ASTM D5185m	15	0	---	---
Molybdenum	ppm	ASTM D5185m	15	0	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	50	0	---	---
Calcium	ppm	ASTM D5185m	50	4	---	---
Phosphorus	ppm	ASTM D5185m	350	277	---	---
Zinc	ppm	ASTM D5185m	100	3	---	---
Sulfur	ppm	ASTM D5185m	12500	597	---	---
Visc @ 40°C	cSt	ASTM D445	220	233	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0873457

**Lab Number** : 06146783

**Unique Number** : 10976861

**Test Package** : CONST

**Received** : 11 Apr 2024

**Tested** : 12 Apr 2024

**Diagnosed** : 16 Apr 2024 - Jonathan Hester

**BUCKNER HEAVY LIFT**

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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)