



# OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

ATTENTION  
NORMAL  
NORMAL

Machine Id  
**LIEBHERR CR6611 - INNER**  
Component  
**Rear Right Final Drive**  
Fluid  
**GEAR OIL ISO 220 (--- GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## WEAR

An increase in the copper level is noted. All other component wear rates are normal.

## CONTAMINATION

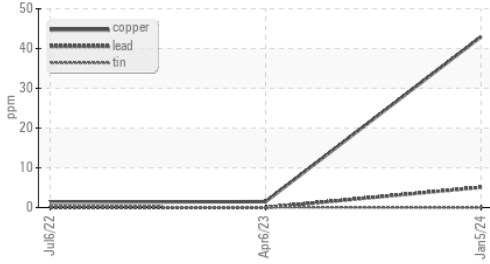
There is no indication of any contamination in the oil.

## FLUID CONDITION

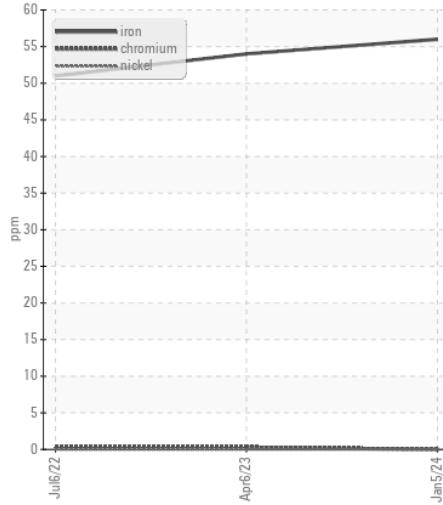
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0873285</b>	WC0746697	WC0687189
Sample Date		Client Info		<b>05 Jan 2024</b>	06 Apr 2023	06 Jul 2022
Machine Age	hrs	Client Info		<b>13889</b>	13215	12454
Oil Age	hrs	Client Info		<b>0</b>	754	404
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>500	<b>56</b>	54	51
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>25	<b>5</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>▲ 43</b>	2	1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>MODER</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	<b>8</b>	8	14
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Boron	ppm	ASTM D5185m	50	<b>4</b>	2	2
Barium	ppm	ASTM D5185m	15	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	50	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m	50	<b>4</b>	4	5
Phosphorus	ppm	ASTM D5185m	350	<b>415</b>	364	417
Zinc	ppm	ASTM D5185m	100	<b>33</b>	7	2
Sulfur	ppm	ASTM D5185m	12500	<b>5652</b>	5626	623
Visc @ 40°C	cSt	ASTM D445	220	<b>217</b>	212	220

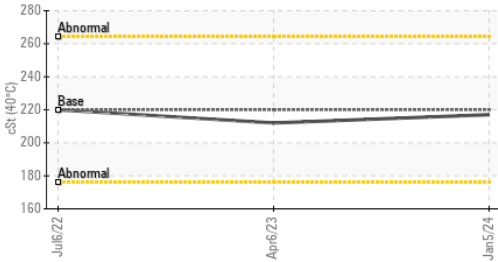
▲ Non-ferrous Metals



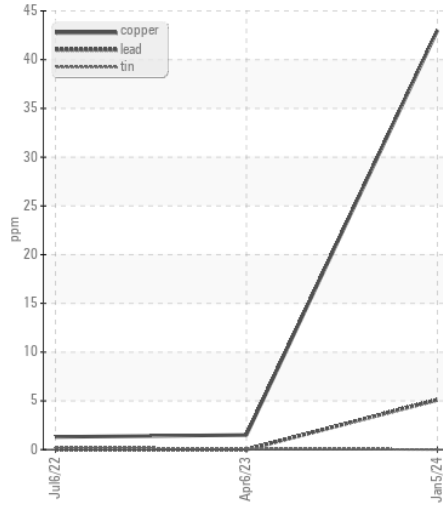
Ferrous Alloys



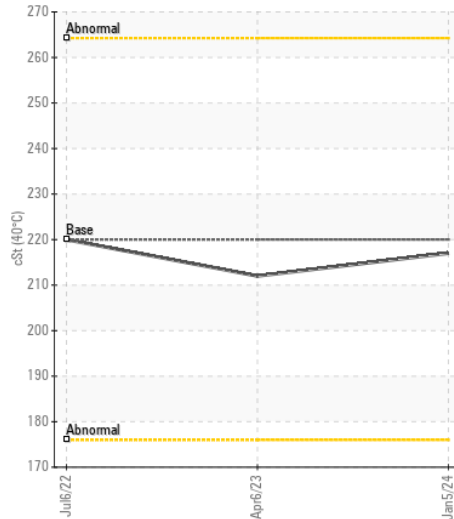
Viscosity @ 40°C



▲ Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0873285 **Received** : 10 Jan 2024  
**Lab Number** : 06057512 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10823461 **Diagnostician** : Sean Felton  
**Test Package** : CONST

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)

**BUCKNER HEAVY LIFT**

4732 NC 54 EAST  
 GRAHAM, NC  
 US 27253-9215

Contact: MICHAEL LAWSON  
 michael@bucknercompanies.com

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