



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR LTR1100 HC1110 (S/N 97351)

Component
2 Winch

Fluid
GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

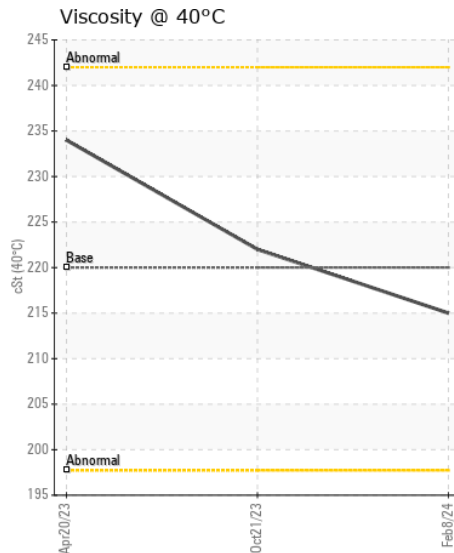
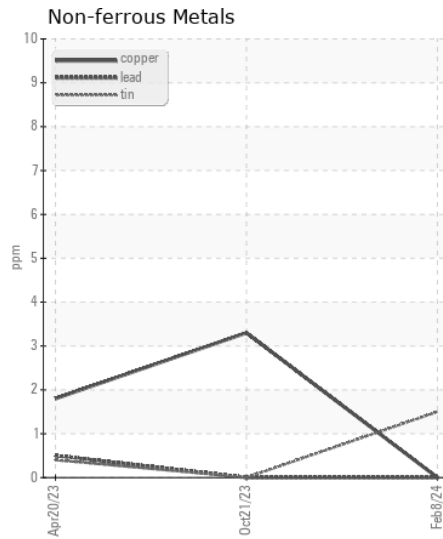
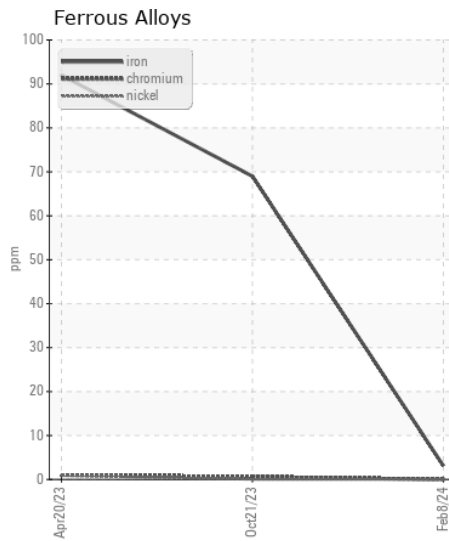
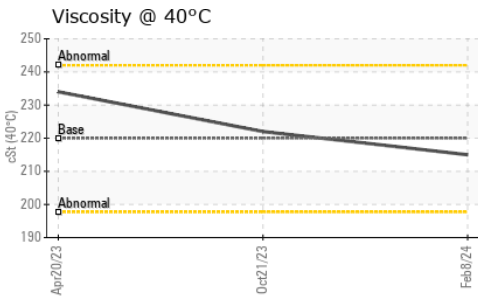
CONTAMINATION

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		WC0873441	WC0833278	WC0784912
Sample Date		Client Info		08 Feb 2024	21 Oct 2023	20 Apr 2023
Machine Age	hrs	Client Info		11988	11669	11025
Oil Age	hrs	Client Info		0	0	913
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>150	3	69	92
Chromium	ppm	ASTM D5185m	>10	0	<1	1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	0	<1	1
Lead	ppm	ASTM D5185m	>15	0	0	<1
Copper	ppm	ASTM D5185m	>80	0	3	2
Tin	ppm	ASTM D5185m		2	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	<1	6	6
Potassium	ppm	ASTM D5185m	>20	0	2	3
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	MODER
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	▲ SOLID
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		0	<1	2
Boron	ppm	ASTM D5185m	50	0	<1	0
Barium	ppm	ASTM D5185m	15	0	0	0
Molybdenum	ppm	ASTM D5185m	15	0	0	0
Manganese	ppm	ASTM D5185m		0	2	2
Magnesium	ppm	ASTM D5185m	50	0	<1	<1
Calcium	ppm	ASTM D5185m	50	0	9	5
Phosphorus	ppm	ASTM D5185m	350	364	485	364
Zinc	ppm	ASTM D5185m	100	0	50	46
Sulfur	ppm	ASTM D5185m	12500	5323	5565	3420
Visc @ 40°C	cSt	ASTM D445	220	215	222	234



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0873441
Lab Number : 06086772
Unique Number : 10874217
Test Package : CONST

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Wes Davis

BUCKNER HEAVY LIFT
 4732 NC 54 EAST
 GRAHAM, NC
 US 27253-9215

Contact: MICHAEL LAWSON
 michael@bucknercompanies.com

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)

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