



# OIL ANALYSIS REPORT

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

Machine Id  
**HC2220**  
 Component  
**1 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		<b>WC0823388</b>	WC0746553	WC0671519
Sample Date		Client Info		<b>08 Apr 2024</b>	25 Jan 2023	04 Apr 2022
Machine Age	hrs	Client Info		<b>3010</b>	1235	677
Oil Age	hrs	Client Info		<b>1000</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>57</b>	40	58
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	3	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>3</b>	0	<1
Lead	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>80	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

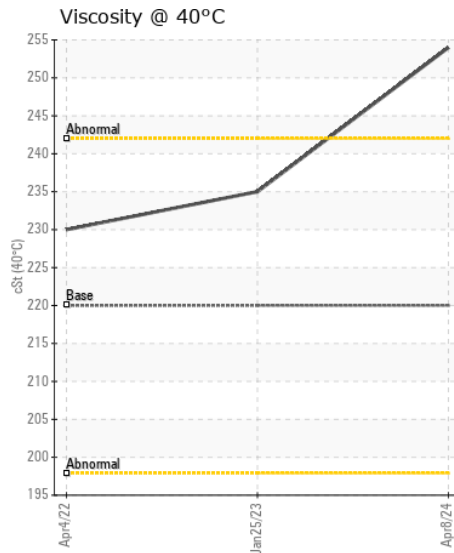
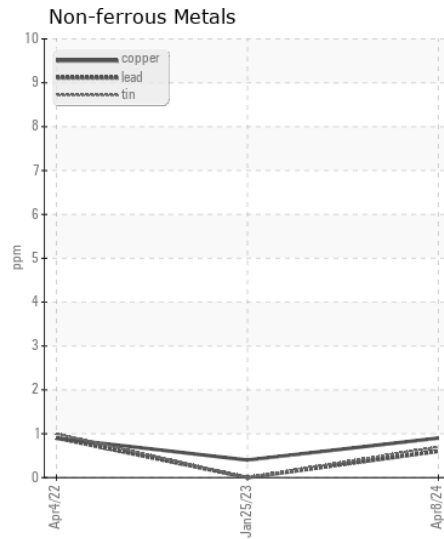
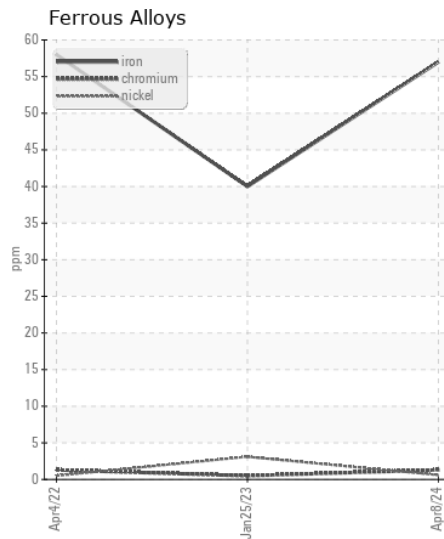
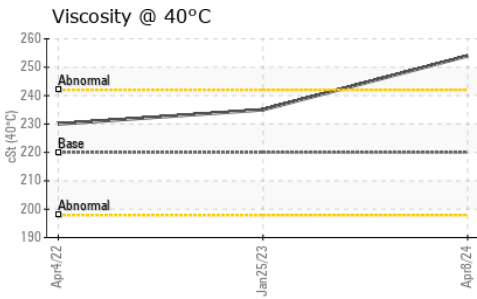
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>10</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	VLITE	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

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	5	4
Boron	ppm	ASTM D5185m	50	<b>&lt;1</b>	0	6
Barium	ppm	ASTM D5185m	15	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	15	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	50	<b>2</b>	<1	2
Calcium	ppm	ASTM D5185m	50	<b>10</b>	3	6
Phosphorus	ppm	ASTM D5185m	350	<b>261</b>	57	33
Zinc	ppm	ASTM D5185m	100	<b>19</b>	13	18
Sulfur	ppm	ASTM D5185m	12500	<b>2505</b>	2400	2081
Visc @ 40°C	cSt	ASTM D445	220	<b>254</b>	235	230



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0823388  
**Lab Number** : 06149027  
**Unique Number** : 10979105  
**Test Package** : CONST

**Received** : 15 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 17 Apr 2024 - Sean Felton

**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)