



# OIL ANALYSIS REPORT

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

Machine Id  
**HC2232 - 2**  
Component  
**Rear 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>WC0952019</b>	WC0823558	---
Sample Date		Client Info		<b>07 Jun 2024</b>	01 Aug 2023	---
Machine Age	hrs	Client Info		<b>2552</b>	1054	---
Oil Age	hrs	Client Info		<b>1000</b>	1054	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Not Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>60</b>	9	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Lead	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>80	<b>&lt;1</b>	5	---
Tin	ppm	ASTM D5185m		<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

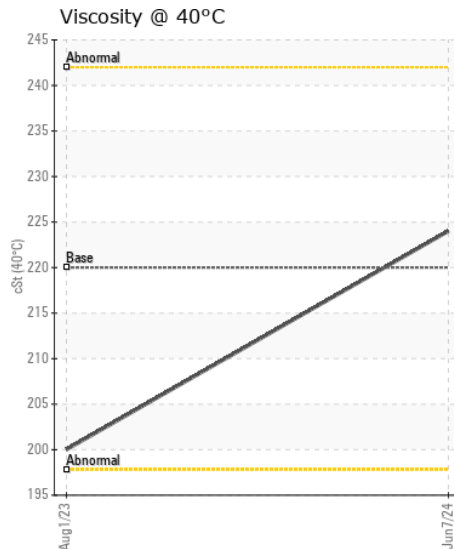
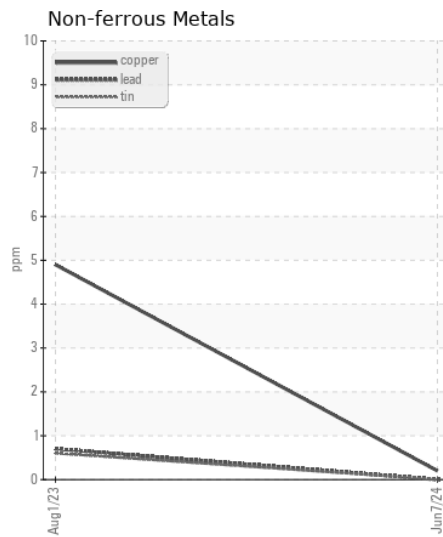
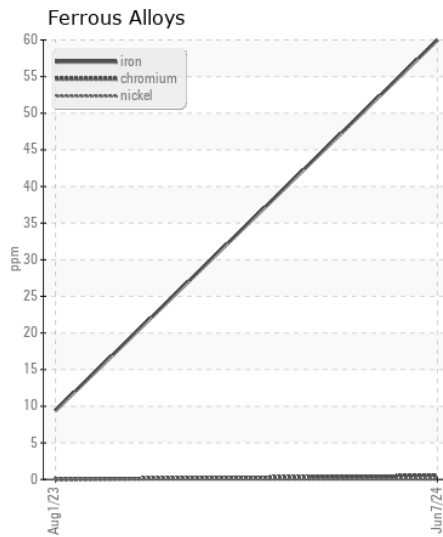
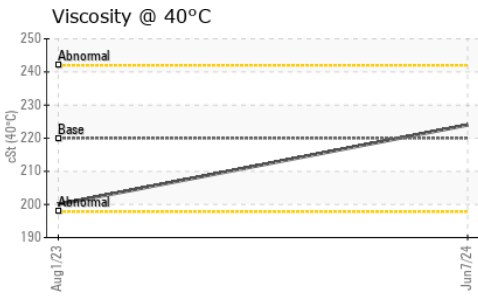
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>2</b>	<1	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	4	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

Suspect the addition of a different brand, or type of oil.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	4	---
Boron	ppm	ASTM D5185m	50	<b>&lt;1</b>	<1	---
Barium	ppm	ASTM D5185m	15	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	---
Magnesium	ppm	ASTM D5185m	50	<b>0</b>	0	---
Calcium	ppm	ASTM D5185m	50	<b>4</b>	13	---
Phosphorus	ppm	ASTM D5185m	350	<b>203</b>	123	---
Zinc	ppm	ASTM D5185m	100	<b>71</b>	85	---
Sulfur	ppm	ASTM D5185m	12500	<b>4981</b>	2287	---
Visc @ 40°C	cSt	ASTM D445	220	<b>224</b>	200	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0952019      **Received** : 14 Jun 2024  
**Lab Number** : 06210958      **Tested** : 18 Jun 2024  
**Unique Number** : 11083822      **Diagnosed** : 18 Jun 2024 - Sean Felton  
**Test Package** : CONST

**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

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)