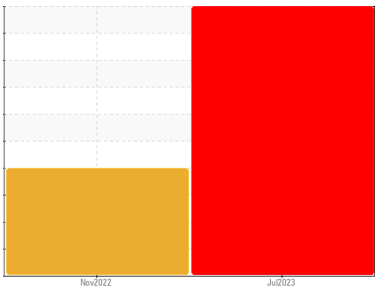
PROBLEM SUMMARY

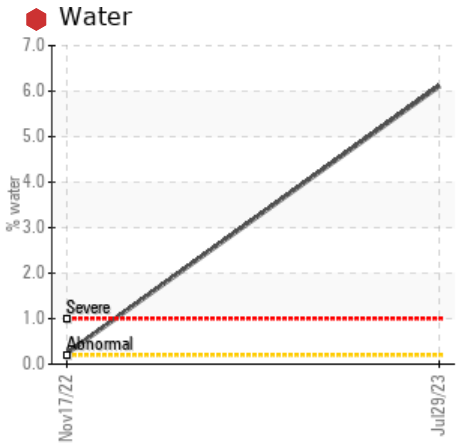
Sample Rating Trend

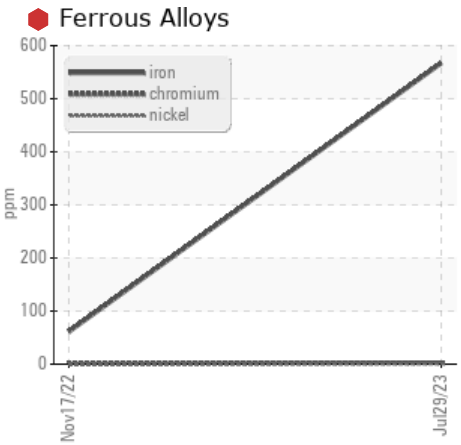


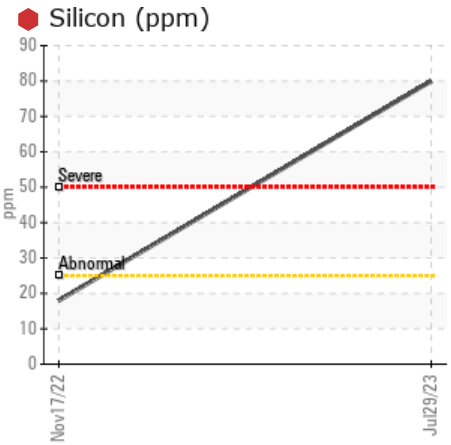
WEAR

Machine Id
HC2229
Component
2 Winch
Fluid
GEAR OIL ISO 220 (--- GAL)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	ABNORMAL	---
Iron	ppm	ASTM D5185m	>150	**567**	61	---
Silicon	ppm	ASTM D5185m	>25	**80**	18	---
Water	%	ASTM D6304	>0.2	**6.11**	▲ 0.235	---
ppm Water	ppm	ASTM D6304	>2000	**61100**	▲ 2350	---
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	0.2%	---

Customer Id: BUCGRA
Sample No.: WC0810378
Lab Number: 05925582
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

17 Nov 2022 Diag: Doug Bogart

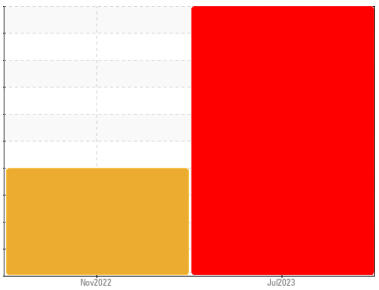
WATER

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Sludge present. There is a light concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
HC2229
Component
2 Winch
Fluid
GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
Gear wear is indicated.

Contamination
Elemental level of silicon (Si) above normal. There is a high concentration of water present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0810378**	WC0720449	---
Sample Date		Client Info		**29 Jul 2023**	17 Nov 2022	---
Machine Age	hrs	Client Info		**6455**	5125	---
Oil Age	hrs	Client Info		**0**	717	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**SEVERE**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	**567**	61	---
Chromium	ppm	ASTM D5185m	>10	**3**	<1	---
Nickel	ppm	ASTM D5185m	>10	**<1**	0	---
Titanium	ppm	ASTM D5185m		**<1**	0	---
Silver	ppm	ASTM D5185m		**0**	1	---
Aluminum	ppm	ASTM D5185m	>5	**2**	1	---
Lead	ppm	ASTM D5185m	>15	**<1**	0	---
Copper	ppm	ASTM D5185m	>80	**2**	<1	---
Tin	ppm	ASTM D5185m		**0**	0	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

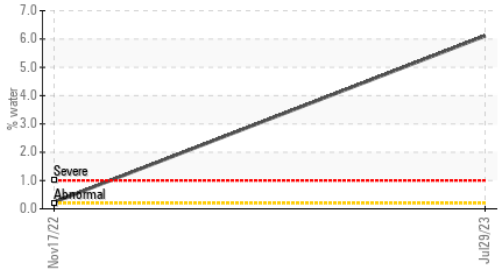
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**0**	<1	---
Barium	ppm	ASTM D5185m	15	**0**	0	---
Molybdenum	ppm	ASTM D5185m	15	**<1**	0	---
Manganese	ppm	ASTM D5185m		**7**	1	---
Magnesium	ppm	ASTM D5185m	50	**2**	<1	---
Calcium	ppm	ASTM D5185m	50	**8**	38	---
Phosphorus	ppm	ASTM D5185m	350	**388**	248	---
Zinc	ppm	ASTM D5185m	100	**53**	26	---
Sulfur	ppm	ASTM D5185m	12500	**2013**	1132	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**80**	18	---
Sodium	ppm	ASTM D5185m		**3**	0	---
Potassium	ppm	ASTM D5185m	>20	**3**	<1	---
Water	%	ASTM D6304	>0.2	**6.11**	0.235	---
ppm Water	ppm	ASTM D6304	>2000	**61100**	2350	---

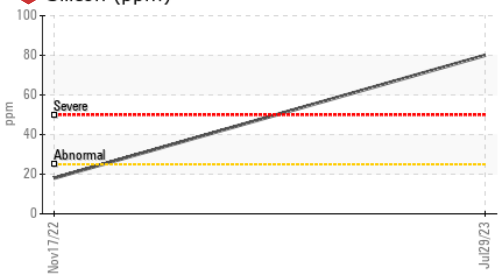
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	MODER	---
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	SOLID	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	0.2%	---
Free Water	scalar	*Visual		**NEG**	>10%	---

OIL ANALYSIS REPORT

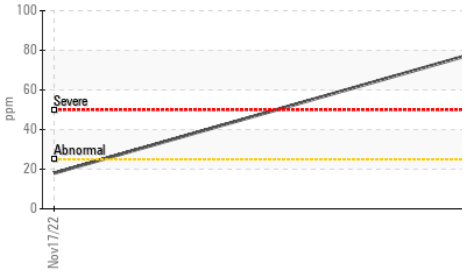
Water



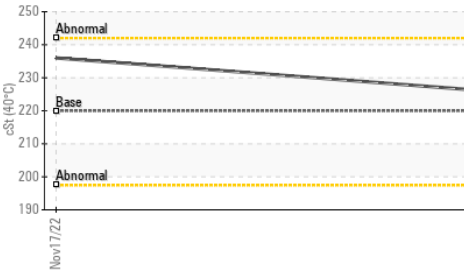
Silicon (ppm)



Silicon (ppm)



Viscosity @ 40°C

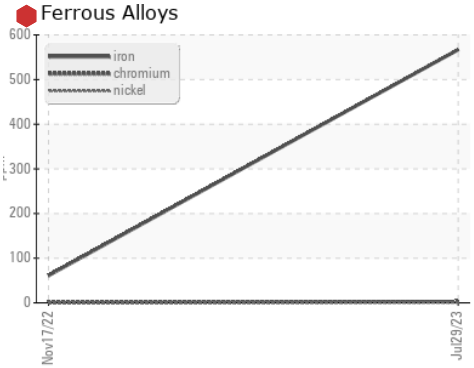


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	**226**	236	---

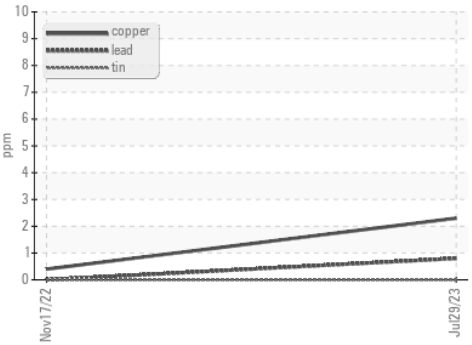
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

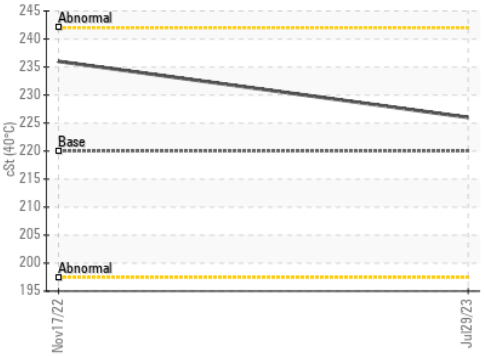
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0810378 **Received** : 15 Aug 2023
Lab Number : 05925582 **Diagnosed** : 17 Aug 2023
Unique Number : 10605529 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: KF)

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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