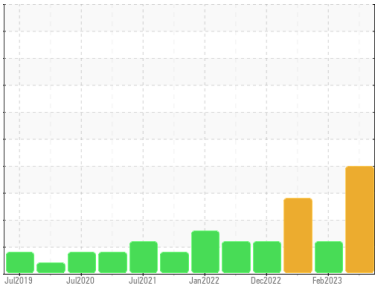
PROBLEM SUMMARY

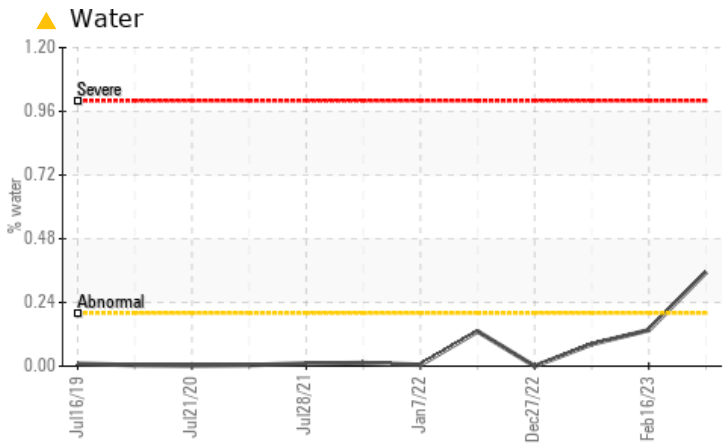
Sample Rating Trend



WATER

Area
Fermentation
Machine Id
Lightnin FHG21AB01 Dosing Tank, Agitator
Component
Gearbox
Fluid
JAX FGG-AW ISO 220 (14 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.2	▲ **0.354**	0.136	0.083
ppm Water	ppm	ASTM D6304	>2000	▲ **3540**	1360	830
Appearance	scalar	*Visual	NORML	▲ **HAZY**	NORML	NORML
Free Water	scalar	*Visual		▲ **1.0**	NEG	▲ 1.0

Customer Id: NOVFRANC
Sample No.: WC0793866
Lab Number: 05853158
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Water Drain-off	MISSED	Jun 30 2023	?	We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid.
Check Water Access	MISSED	Jun 30 2023	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

16 Feb 2023 Diag: Doug Bogart

ISO

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

31 Jan 2023 Diag: Doug Bogart

WATER

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. Please note that this is a corrected copy for diagnostic comment updates.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Free water present. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

27 Dec 2022 Diag: Doug Bogart

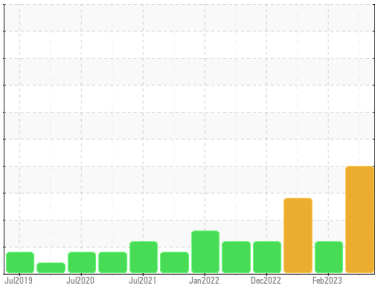
ISO

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
Fermentation
Machine Id
Lightnin FHG21AB01 Dosing Tank, Agitator
Component
Gearbox
Fluid
JAX FGG-AW ISO 220 (14 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Appearance is hazy. Free water present. There is a moderate concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0793866**	WC0697841	WC0745865
Sample Date		Client Info		**17 May 2023**	16 Feb 2023	31 Jan 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**15**	1	8
Chromium	ppm	ASTM D5185m	>15	**0**	0	0
Nickel	ppm	ASTM D5185m	>15	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**<1**	0	<1
Lead	ppm	ASTM D5185m	>100	**<1**	0	0
Copper	ppm	ASTM D5185m	>200	**<1**	0	0
Tin	ppm	ASTM D5185m	>25	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**2**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**<1**	0	0
Calcium	ppm	ASTM D5185m		**78**	2	5
Phosphorus	ppm	ASTM D5185m		**506**	456	420
Zinc	ppm	ASTM D5185m		**20**	0	9
Sulfur	ppm	ASTM D5185m		**1188**	1176	973

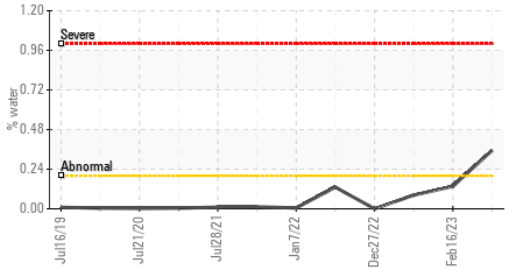
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**2**	0	<1
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	0
Water	%	ASTM D6304	>0.2	▲ **0.354**	0.136	0.083
ppm Water	ppm	ASTM D6304	>2000	▲ **3540**	1360	830

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**1427**	▲ 56976	▲ 96574
Particles >6µm		ASTM D7647	>5000	**777**	▲ 7638	▲ 11660
Particles >14µm		ASTM D7647	>640	**132**	155	57
Particles >21µm		ASTM D7647	>160	**45**	27	8
Particles >38µm		ASTM D7647	>40	**7**	1	0
Particles >71µm		ASTM D7647	>10	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**18/17/14**	▲ 23/20/14	▲ 24/21/13

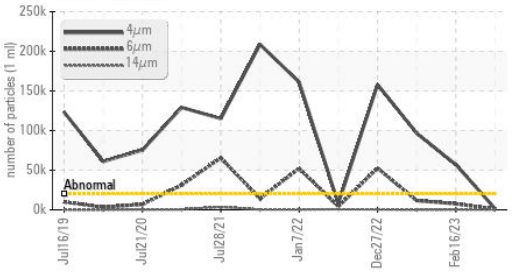
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.34**	0.38	0.38

OIL ANALYSIS REPORT

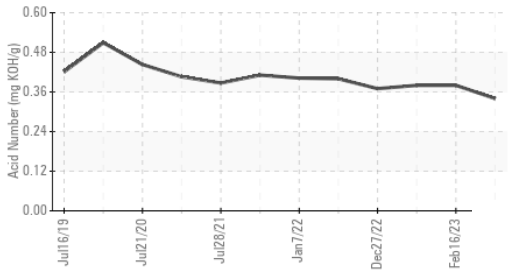
Water



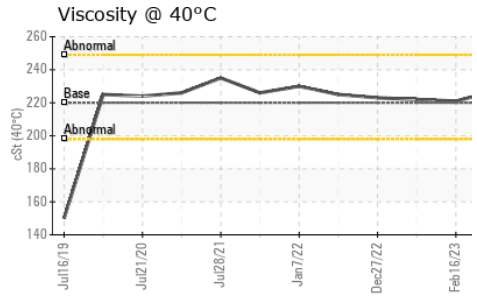
Particle Trend



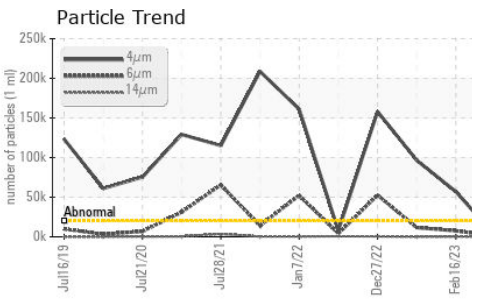
Acid Number



Viscosity @ 40°C

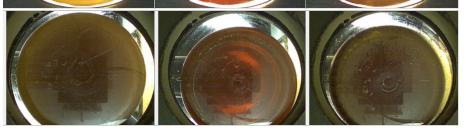


Particle Trend



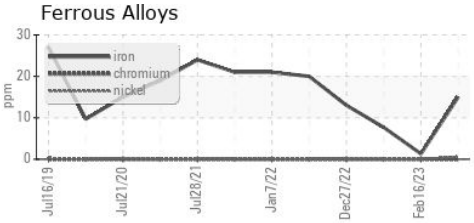
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **HAZY**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	0.2%	0.2%
Free Water	scalar	*Visual		▲ **1.0**	NEG	▲ 1.0

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	**227**	221	222

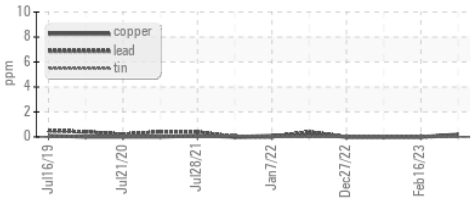
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

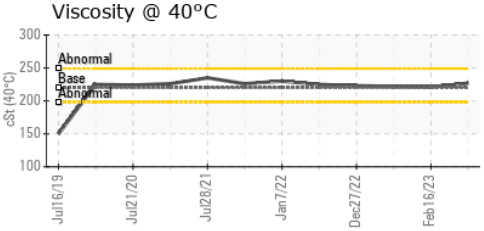
Ferrous Alloys



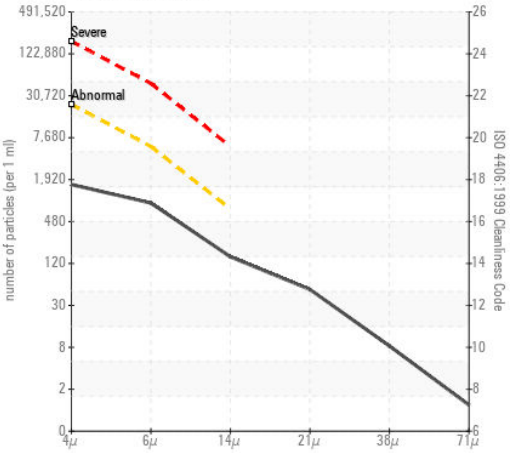
Non-ferrous Metals



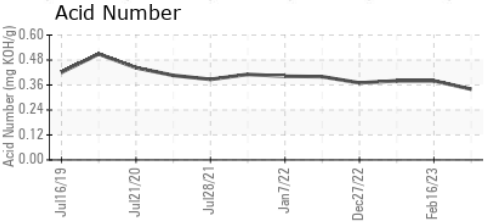
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0793866 **Received** : 22 May 2023
Lab Number : 05853158 **Diagnosed** : 25 May 2023
Unique Number : 10482513 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Certificate L2367

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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