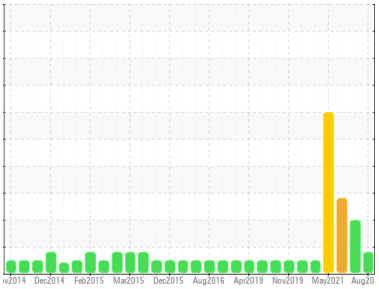
PROBLEM SUMMARY

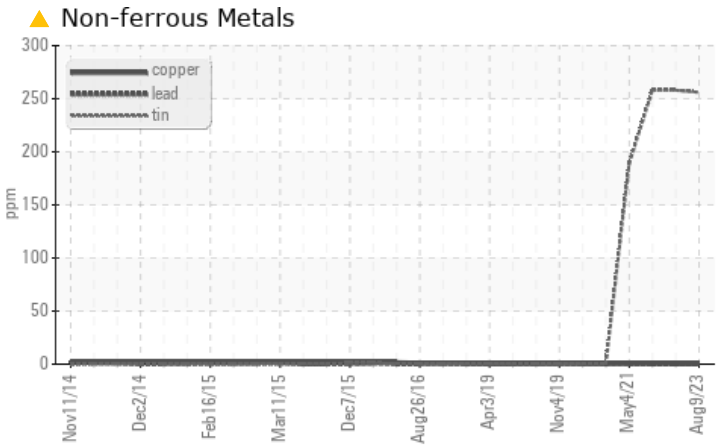
Sample Rating Trend



WEAR

Area
SERVO VALVES [RESERVOIR]
Machine Id
AF01-0821HP01 MON PRESS HY RESERVOIR
Component
Reservoir Hydraulic System
Fluid
KLUBER SUMMIT HYSYN FR 46 (1000 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please submit a sample of the new (unused) oil to establish a baseline.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL
Tin	ppm	ASTM D5185m	>20	▲ **258**	▲ 258	▲ 256

Customer Id: FLAMONNC
Sample No.: WC0806893
Lab Number: 05930854
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@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
Resample	---	---	?	Please submit a sample of the new (unused) oil to establish a baseline.

HISTORICAL DIAGNOSIS

09 Aug 2023 Diag: Doug Bogart

WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please submit a sample of the new (unused) oil to establish a baseline.The tin level is abnormal. Suspect additive. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The condition of the oil is acceptable for the time in service.

view report

09 Aug 2023 Diag: Doug Bogart

WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please submit a sample of the new (unused) oil to establish a baseline.The tin level is abnormal. Suspect additive. All other component wear rates are normal. There is a high amount of particulates present in the oil. The condition of the oil is acceptable for the time in service.

view report

04 May 2021 Diag: Angela Borella

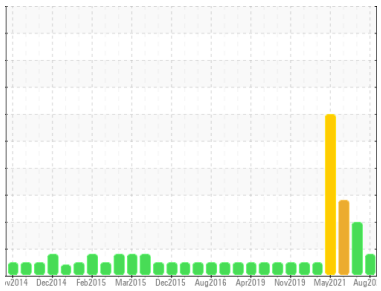
WEAR

The filter 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.Tin ppm levels are severe. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
SERVO VALVES [RESERVOIR]
Machine Id
AF01-0821HP01 MON PRESS HY RESERVOIR
Component
Reservoir Hydraulic System
Fluid
KLUBER SUMMIT HYSYN FR 46 (1000 GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please submit a sample of the new (unused) oil to establish a baseline.

▲ Wear

The tin level is abnormal. Suspect additive. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0806893**	WC0806894	WC0806862
Sample Date		Client Info		**09 Aug 2023**	09 Aug 2023	09 Aug 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**17**	17	16
Iron	ppm	ASTM D5185m	>20	**2**	2	2
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>20	▲ **258**	▲ 258	▲ 256
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

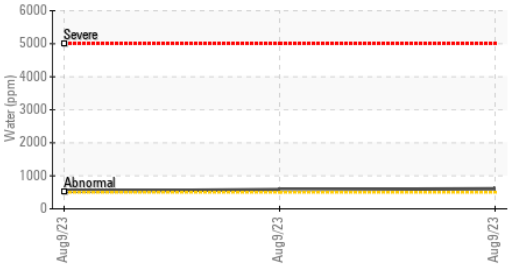
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**2**	2	1
Calcium	ppm	ASTM D5185m		**0**	0	<1
Phosphorus	ppm	ASTM D5185m		**179**	176	176
Zinc	ppm	ASTM D5185m		**19**	15	16
Sulfur	ppm	ASTM D5185m		**824**	824	838

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**4**	4	3
Sodium	ppm	ASTM D5185m		**<1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.05	**0.060**	0.058	0.053
ppm Water	ppm	ASTM D6304	>500	**608.5**	584.1	534.5

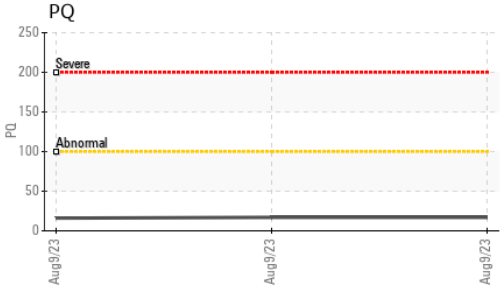
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	**637**	▲ 3939	▲ 2373
Particles >6µm		ASTM D7647	>320	**163**	▲ 1061	▲ 790
Particles >14µm		ASTM D7647	>40	**17**	39	▲ 57
Particles >21µm		ASTM D7647	>10	**5**	7	▲ 15
Particles >38µm		ASTM D7647	>3	**1**	1	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>17/15/12	**16/15/11**	▲ 19/17/12	▲ 18/17/13

OIL ANALYSIS REPORT

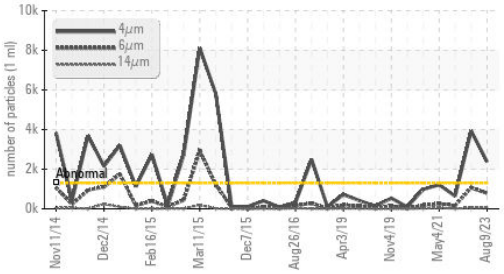
Water (KF)



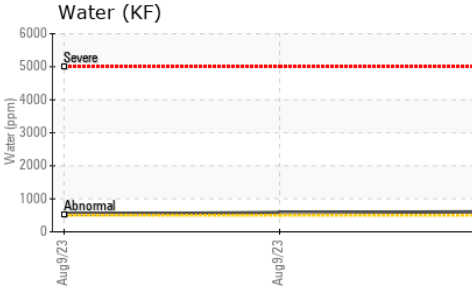
PQ



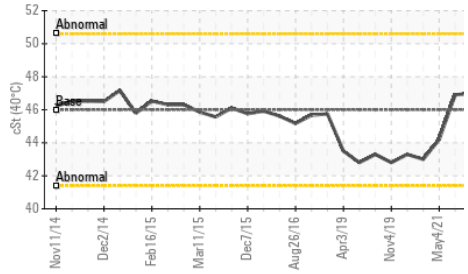
Particle Trend



Water (KF)



Viscosity @ 40°C

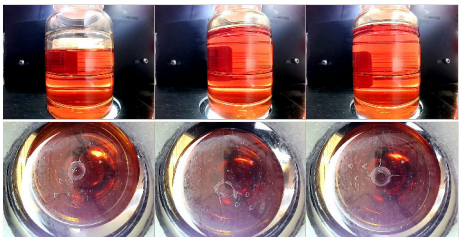


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**2.38**	2.42	2.45

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	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

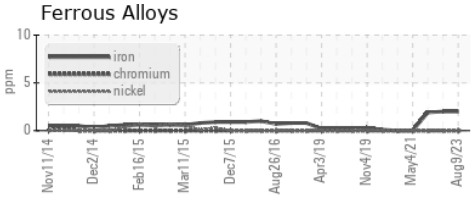
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**47.1**	47.0	46.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

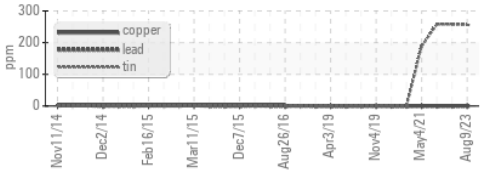


GRAPHS

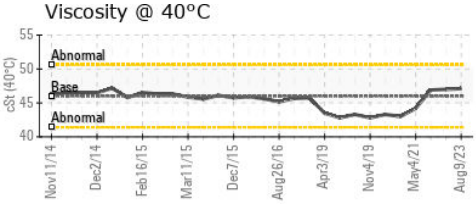
Ferrous Alloys



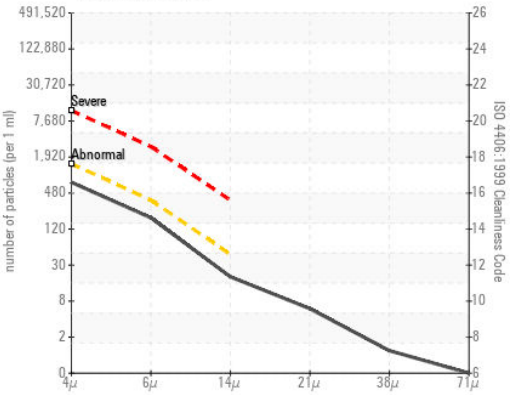
Non-ferrous Metals



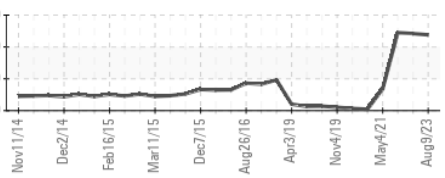
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: WC0806893	**Received**	: 22 Aug 2023
Lab Number	: 05930854	**Diagnosed**	: 23 Aug 2023
Unique Number	: 10616125	**Diagnostician**	: Doug Bogart
Test Package	: IND 2 (Additional Tests: KF, PQ)		

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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