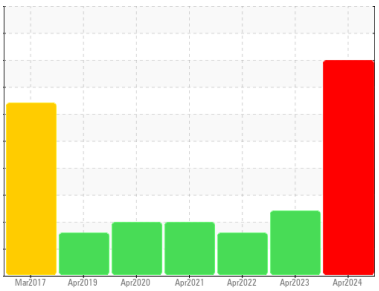
PROBLEM SUMMARY

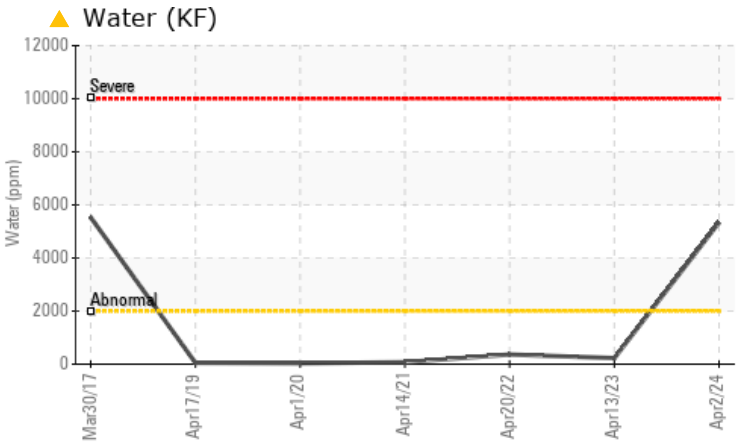
Sample Rating Trend



WATER

Machine Id
AUTOCANE 1A
Component
Gearbox
Fluid
CHEVRON MEROPA 220 (10 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. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.2	▲ **0.534**	0.022	0.036
ppm Water	ppm	ASTM D6304	>2000	▲ **5340**	227.0	362.5
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		▲ **2.0**	NEG	NEG

Customer Id: HYDBELFL
Sample No.: ST43739
Lab Number: 06143041
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	---	---	?	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	---	---	?	We recommend an early resample to monitor this condition.
Contact Required	---	---	?	Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

ISO

13 Apr 2023 Diag: Jonathan Hester

We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue. Please note that this is a corrected copy for diagnostic comment updates.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

ISO

20 Apr 2022 Diag: Don Baldridge

We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

ISO

14 Apr 2021 Diag: Doug Bogart

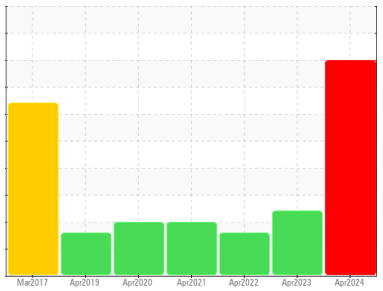
We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

STAUFF FILTRATION TECHNOLOGY

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
AUTOCANE 1A
Component
Gearbox
Fluid
CHEVRON MEROPA 220 (10 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. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

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. There is a moderate amount of visible silt present in the sample.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**ST43739**	ST44633	ST42449
Sample Date		Client Info		**02 Apr 2024**	13 Apr 2023	20 Apr 2022
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**171**	82	102
Chromium	ppm	ASTM D5185m	>15	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>15	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**<1**	<1	1
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**<1**	1	2
Tin	ppm	ASTM D5185m	>25	**<1**	0	0
Antimony	ppm	ASTM D5185m	>5	**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	40	**0**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	<1	<1
Manganese	ppm	ASTM D5185m		**2**	2	2
Magnesium	ppm	ASTM D5185m		**2**	2	1
Calcium	ppm	ASTM D5185m		**16**	14	15
Phosphorus	ppm	ASTM D5185m	270	**182**	176	128
Zinc	ppm	ASTM D5185m		**11**	7	6
Sulfur	ppm	ASTM D5185m	8600	**9885**	7757	3977

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**10**	8	8
Sodium	ppm	ASTM D5185m		**2**	3	2
Potassium	ppm	ASTM D5185m	>20	**0**	<1	2
Water	%	ASTM D6304	>0.2	▲ **0.534**	0.022	0.036
ppm Water	ppm	ASTM D6304	>2000	▲ **5340**	227.0	362.5

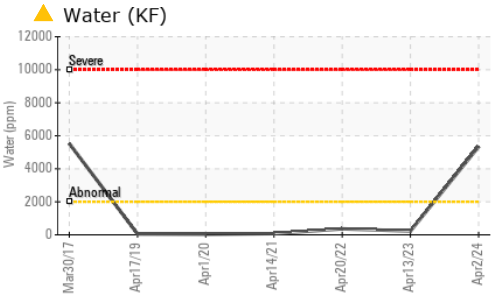
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	**---**	▲ 134781	▲ 180082
Particles >6µm		ASTM D7647	>320	**---**	▲ 41979	▲ 49116
Particles >14µm		ASTM D7647	>80	**---**	▲ 1453	▲ 1296
Particles >21µm		ASTM D7647	>20	**---**	▲ 257	▲ 194
Particles >38µm		ASTM D7647	>4	**---**	▲ 18	3
Particles >71µm		ASTM D7647	>3	**---**	1	2
Oil Cleanliness		ISO 4406 (c)	>17/15/13	**---**	▲ 24/23/18	▲ 25/23/17

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.64	**0.30**	0.57	0.20

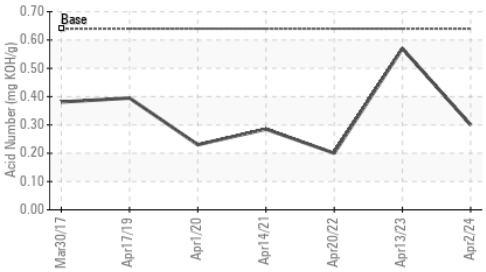
STAUFF FILTRATION TECHNOLOGY

OIL ANALYSIS REPORT

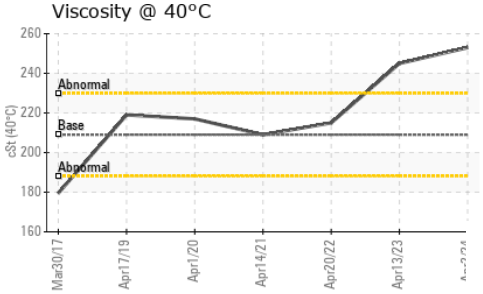
Water (KF)



Acid Number

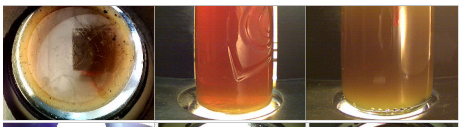
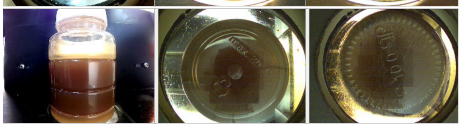


Viscosity @ 40°C



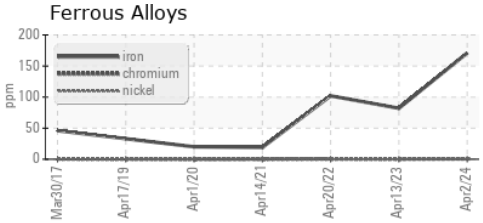
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
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%**	NEG	NEG
Free Water	scalar	*Visual		▲ **2.0**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	209	**253**	245	215

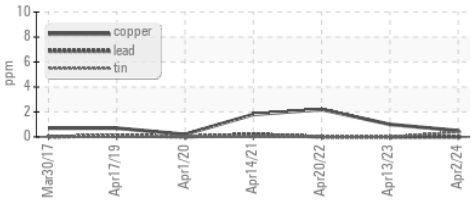
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

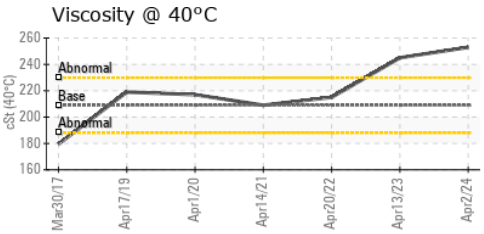
Ferrous Alloys



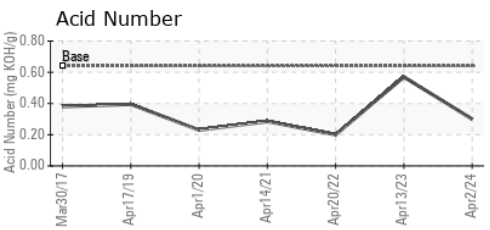
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ST43739
Lab Number : 06143041
Unique Number : 10967849
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Received : 09 Apr 2024
Tested : 11 Apr 2024
Diagnosed : 11 Apr 2024 - Jonathan Hester

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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