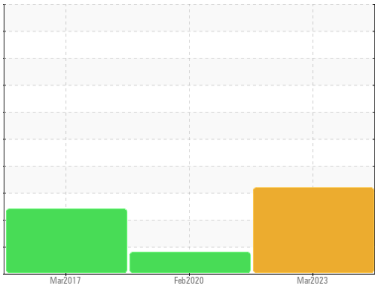
PROBLEM SUMMARY

Sample Rating Trend

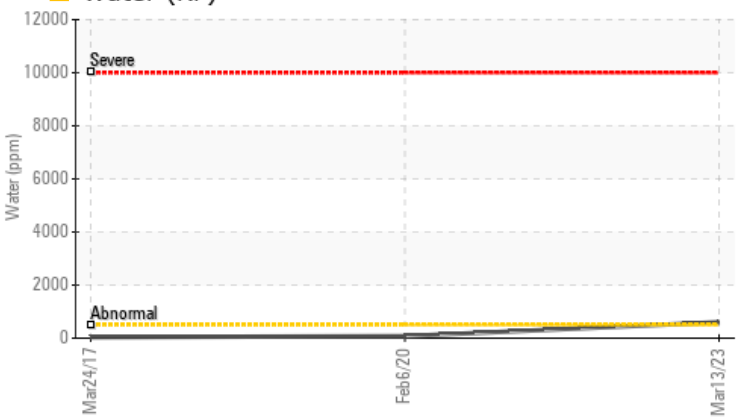


WATER

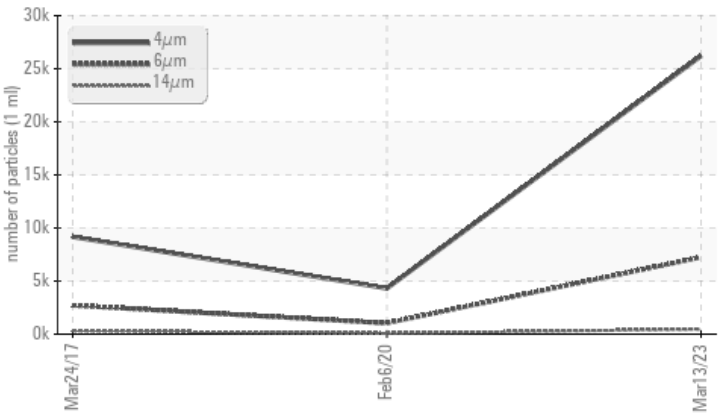
Machine Id
KAESER AIRCENTER SM 10 3110662 (S/N 1214)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- QTS)

COMPONENT CONDITION SUMMARY

Water (KF)



Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ **0.060**	0.007	0.004
ppm Water	ppm	ASTM D6304	>500	▲ **600**	75.0	40
Particles >6µm		ASTM D7647	>1300	▲ **7236**	1030	▲ 2709
Particles >14µm		ASTM D7647	>80	▲ **467**	68	▲ 306
Particles >21µm		ASTM D7647	>20	▲ **121**	27	▲ 106
Oil Cleanliness		ISO 4406 (c)	>17/13	▲ **20/16**	17/13	▲ 19/15

Customer Id: PENCRA
Sample No.: KCPA001549
Lab Number: 05796682
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

06 Feb 2020 Diag: Doug Bogart

WEAR

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

24 Mar 2017 Diag: Doug Bogart

ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.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

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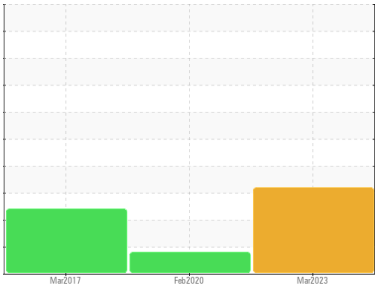
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER AIRCENTER SM 10 3110662 (S/N 1214)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- QTS)

DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA001549**	KCP20542	KCP71270
Sample Date		Client Info		**13 Mar 2023**	06 Feb 2020	24 Mar 2017
Machine Age	hrs	Client Info		**16914**	13889	11668
Oil Age	hrs	Client Info		**0**	2221	371
Oil Changed		Client Info		**N/A**	Changed	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	<1	<1
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m	>3	**0**	<1	1
Titanium	ppm	ASTM D5185m	>3	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	<1
Aluminum	ppm	ASTM D5185m	>10	**0**	0	0
Lead	ppm	ASTM D5185m	>10	**0**	<1	0
Copper	ppm	ASTM D5185m	>50	**13**	▲ 59	8
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	0	2
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	<1	0
Barium	ppm	ASTM D5185m	90	**0**	0	<1
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m	100	**6**	0	5
Calcium	ppm	ASTM D5185m	0	**0**	<1	0
Phosphorus	ppm	ASTM D5185m	0	**<1**	0	0
Zinc	ppm	ASTM D5185m	0	**42**	0	45
Sulfur	ppm	ASTM D5185m	23500	**21648**	15133	17416

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**2**	<1	0
Sodium	ppm	ASTM D5185m		**2**	0	2
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.05	▲ **0.060**	0.007	0.004
ppm Water	ppm	ASTM D6304	>500	▲ **600**	75.0	40

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**26204**	4310	9169
Particles >6µm		ASTM D7647	>1300	▲ **7236**	1030	▲ 2709
Particles >14µm		ASTM D7647	>80	▲ **467**	68	▲ 306
Particles >21µm		ASTM D7647	>20	▲ **121**	27	▲ 106
Particles >38µm		ASTM D7647	>4	**5**	6	▲ 17
Particles >71µm		ASTM D7647	>3	**0**	2	▲ 10
Oil Cleanliness		ISO 4406 (c)	>17/13	▲ **20/16**	17/13	▲ 19/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.32**	0.338	0.330

KAESER COMPRESSORS
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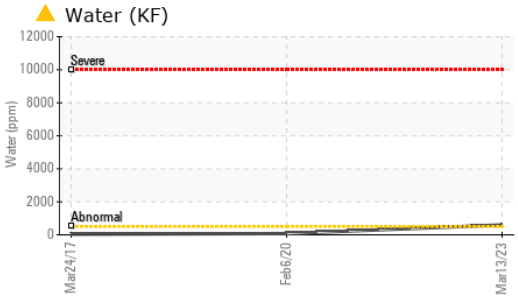
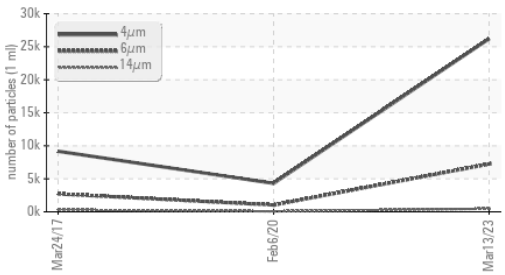
OIL ANALYSIS REPORT

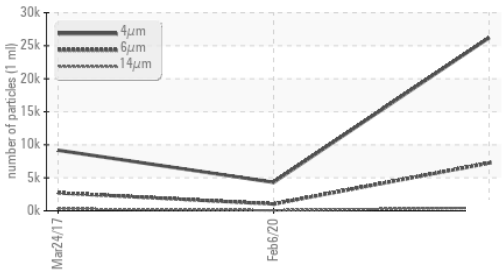
Water (KF)



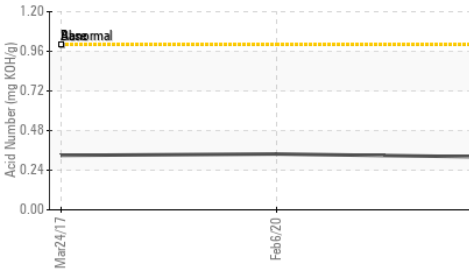
Particle Trend



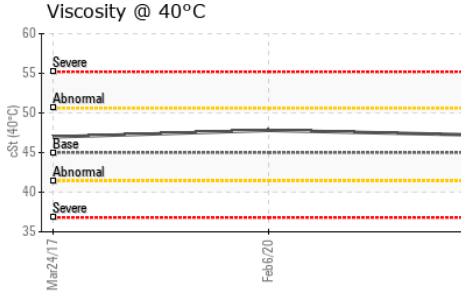
Particle Trend



Acid Number

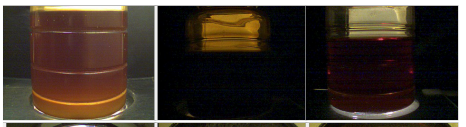
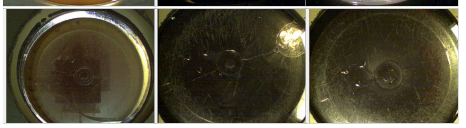


Viscosity @ 40°C



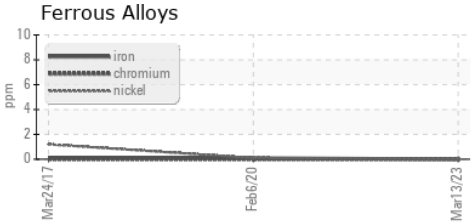
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	LIGHT
Sand/Dirt	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	**0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**47.2**	47.8	46.97

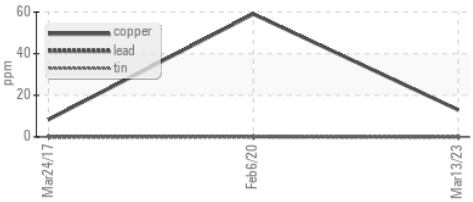
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

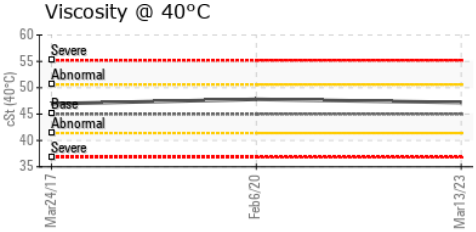
Ferrous Alloys



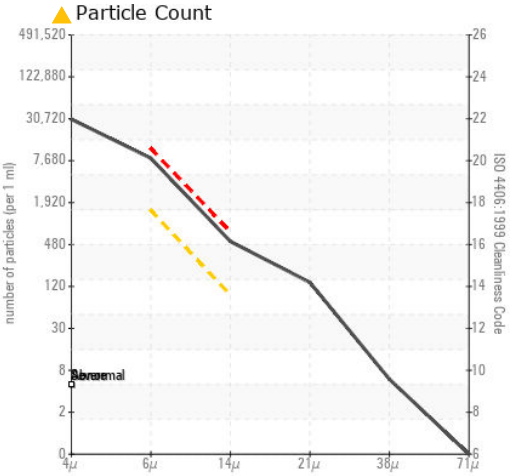
Non-ferrous Metals



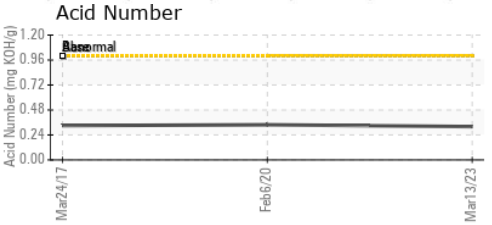
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA001549 **Received** : 20 Mar 2023
Lab Number : 05796682 **Diagnosed** : 22 Mar 2023
Unique Number : 10386366 **Diagnostician** : Angela Borella
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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