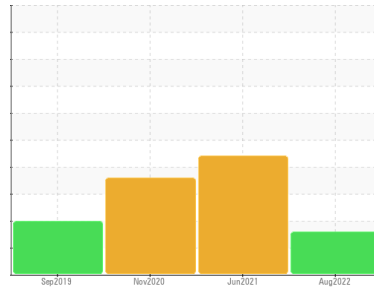


PROBLEM SUMMARY

Sample Rating Trend



ISO



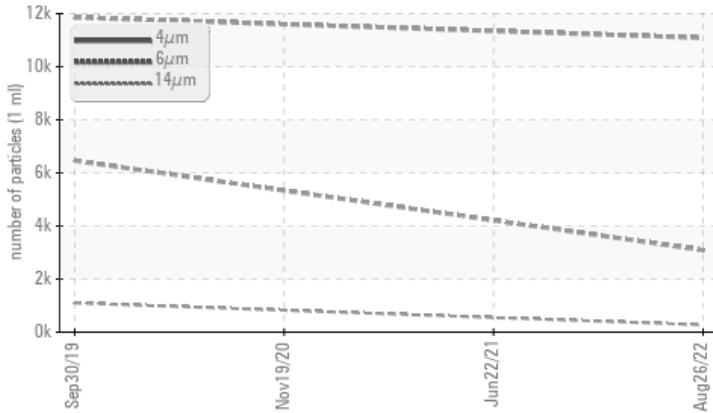
Machine Id
KAESER 5C 5600853 (S/N 1008)

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	▲ 3090	---	---
Particles >14µm	ASTM D7647	>80	▲ 273	---	---
Particles >21µm	ASTM D7647	>20	▲ 84	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 21/19/15	---	---

Customer Id: BIRCHA
Sample No.: KCP30915
Lab Number: 05630595
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

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

22 Jun 2021 Diag: Jonathan Hester

WATER



We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend you service the filters on this component. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Free water present. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



19 Nov 2020 Diag: Jonathan Hester

WATER



We advise that you stop the unit and follow the water drain-off procedure for this component. The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Free water present. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



30 Sep 2019 Diag: Doug Bogart

ISO



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. 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.

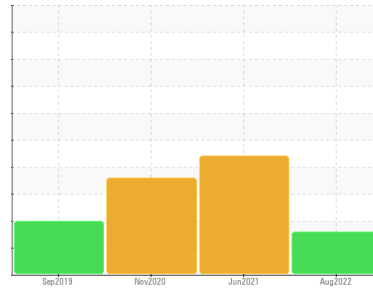
[view report](#)



Machine Id
KAESER 5C 5600853 (S/N 1008)

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



DIAGNOSIS

▲ Recommendation

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.

Wear

All component wear rates are normal.

▲ Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			KCP30915	KCP26341	KCP34065
Sample Date			26 Aug 2022	22 Jun 2021	19 Nov 2020
Machine Age	hrs		5006	4007	3435
Oil Age	hrs		2961	1000	1500
Oil Changed			Changed	Not Changd	Not Changd
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m	>50	0	0	0
Chromium	ppm ASTM D5185m	>10	0	0	0
Nickel	ppm ASTM D5185m	>3	0	0	1
Titanium	ppm ASTM D5185m	>3	0	0	0
Silver	ppm ASTM D5185m	>2	0	0	0
Aluminum	ppm ASTM D5185m	>10	0	0	0
Lead	ppm ASTM D5185m	>10	0	<1	2
Copper	ppm ASTM D5185m	>50	30	27	31
Tin	ppm ASTM D5185m	>10	0	0	0
Antimony	ppm ASTM D5185m		---	0	0
Vanadium	ppm ASTM D5185m		0	0	0
Cadmium	ppm ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m	0	0	<1	<1
Barium	ppm ASTM D5185m	90	<1	0	0
Molybdenum	ppm ASTM D5185m	0	0	0	0
Manganese	ppm ASTM D5185m		0	0	0
Magnesium	ppm ASTM D5185m	100	0	2	1
Calcium	ppm ASTM D5185m	0	<1	0	0
Phosphorus	ppm ASTM D5185m	0	2	2	2
Zinc	ppm ASTM D5185m	0	42	31	51
Sulfur	ppm ASTM D5185m	23500	17112	14783	15390

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	0	0	0
Sodium	ppm ASTM D5185m		<1	0	1
Potassium	ppm ASTM D5185m	>20	0	0	6
Water	% ASTM D6304	>0.05	0.023	▲ 0.095	▲ 0.104
ppm Water	ppm ASTM D6304	>500	238.4	▲ 950	▲ 1041

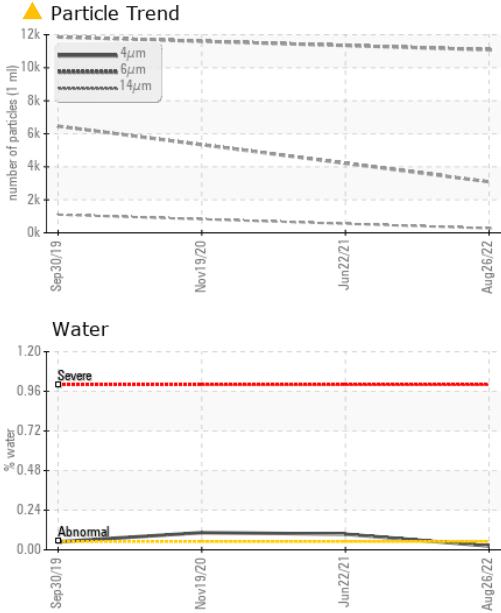
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		11089	---	---
Particles >6µm	ASTM D7647	>1300	▲ 3090	---	---
Particles >14µm	ASTM D7647	>80	▲ 273	---	---
Particles >21µm	ASTM D7647	>20	▲ 84	---	---
Particles >38µm	ASTM D7647	>4	5	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 21/19/15	---	---

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	1.0	0.34	0.304	0.298

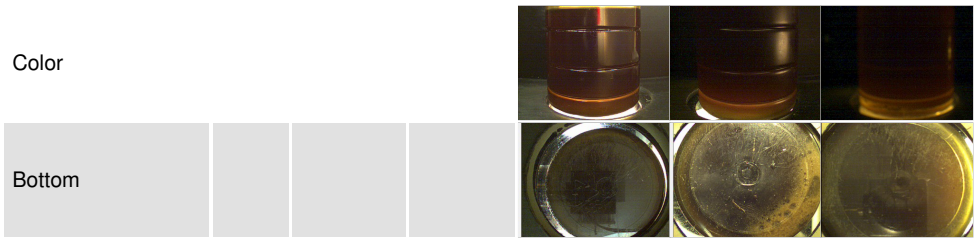
OIL ANALYSIS REPORT



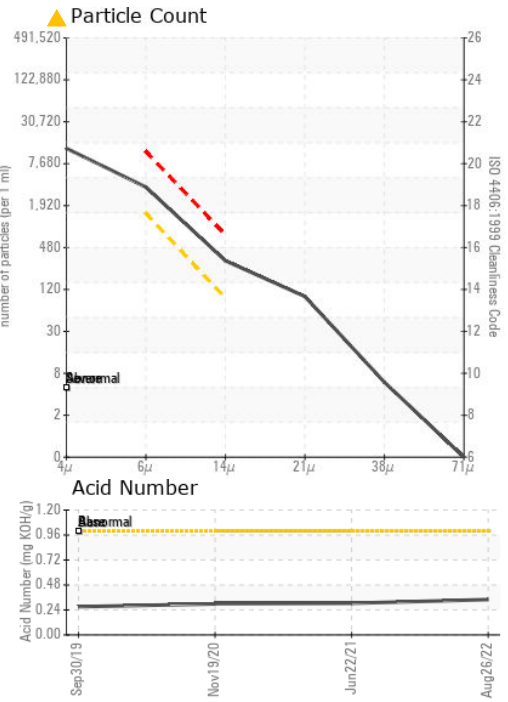
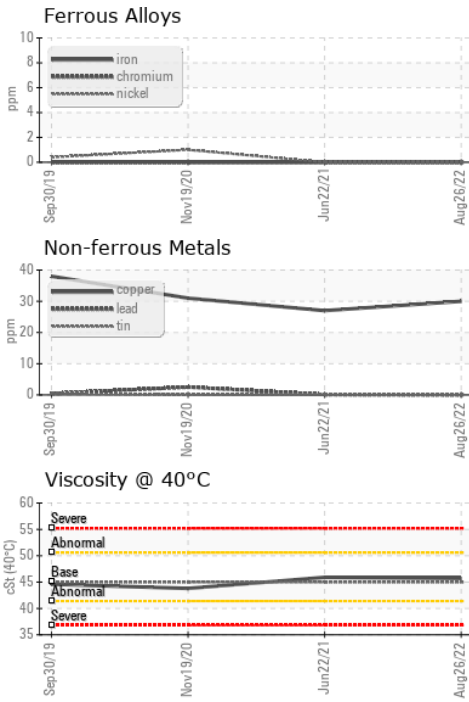
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	▲ 0.2%
Free Water	scalar	*Visual		▲ 1.0	▲ 1.0

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	45.7	45.9

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
---------------	--------	------------	---------	-----------	-----------



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP30915 **Received** : 30 Aug 2022
Lab Number : 05630595 **Diagnosed** : 01 Sep 2022
Unique Number : 10115116 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

BIRDSONG BREWERY
 1016 N DAVIDSON ST
 CHARLOTTE, NC
 USA 28206
 Contact: Service Manager

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)

T:
F: