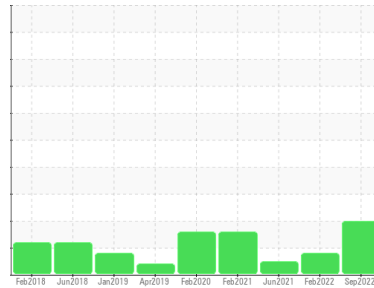


PROBLEM SUMMARY

Sample Rating Trend



WATER



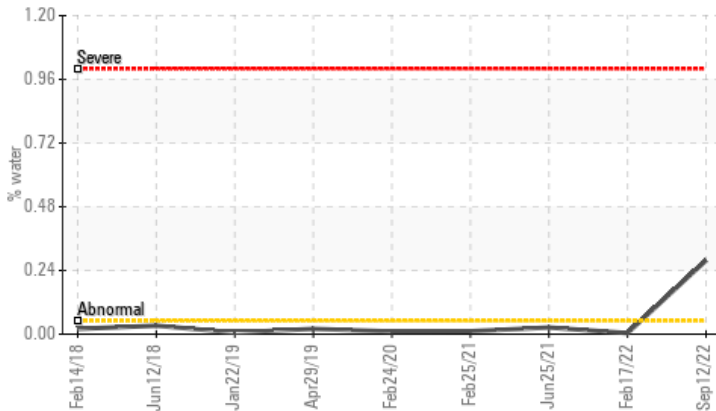
Machine Id
KAESER SM 10 5846058 (S/N 1980)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Water



RECOMMENDATION

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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	ATTENTION	NORMAL
Water	%	ASTM D6304	>0.05	▲ 0.278	0.004	0.025
ppm Water	ppm	ASTM D6304	>500	▲ 2780	46.4	255.1
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE

Customer Id: VULCOR
Sample No.: KC91670
Lab Number: 05646604
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
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

17 Feb 2022 Diag: Don Baldrige

WEAR



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

view report



25 Jun 2021 Diag: Angela Borella

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



25 Feb 2021 Diag: Angela Borella

ISO



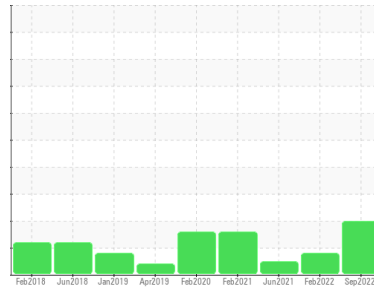
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id
KAESER SM 10 5846058 (S/N 1980)

Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- QTS)



DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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 light concentration of water present in the oil. Moderate concentration of visible dirt/debris 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			KC91670	KC85828	KC92543
Sample Date			12 Sep 2022	17 Feb 2022	25 Jun 2021
Machine Age	hrs		34588	31199	27827
Oil Age	hrs		3400	4000	2300
Oil Changed			Not Changed	Changed	Not Changed
Sample Status			ABNORMAL	ATTENTION	NORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	0	<1	<1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	<1	0
Aluminum	ppm	ASTM D5185m >10	0	<1	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >50	17	▲ 37	10
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	3	14
Barium	ppm	ASTM D5185m 90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 90	14	6	44
Calcium	ppm	ASTM D5185m 2	0	0	0
Phosphorus	ppm	ASTM D5185m	2	2	<1
Zinc	ppm	ASTM D5185m	22	18	47

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	0	0
Sodium	ppm	ASTM D5185m	6	2	10
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304 >0.05	▲ 0.278	0.004	0.025
ppm Water	ppm	ASTM D6304 >500	▲ 2780	46.4	255.1

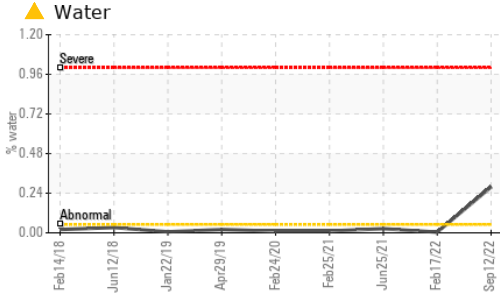
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		---	4532	3695
Particles >6µm	ASTM D7647	>1300	---	627	822
Particles >14µm	ASTM D7647	>80	---	34	59
Particles >21µm	ASTM D7647	>20	---	7	9
Particles >38µm	ASTM D7647	>4	---	0	0
Particles >71µm	ASTM D7647	>3	---	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	---	16/12	17/13

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.28	0.31	0.325

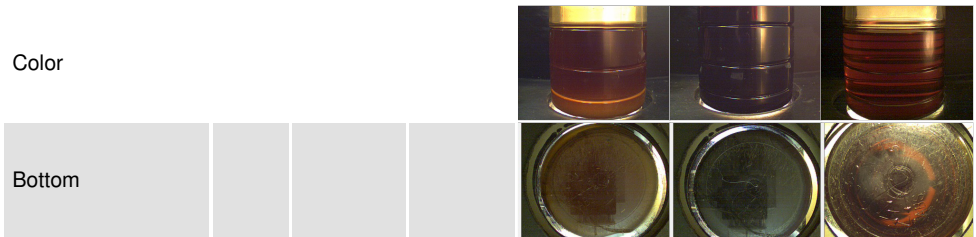
OIL ANALYSIS REPORT



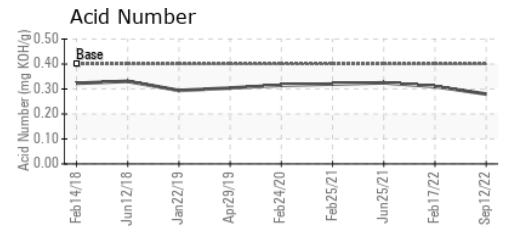
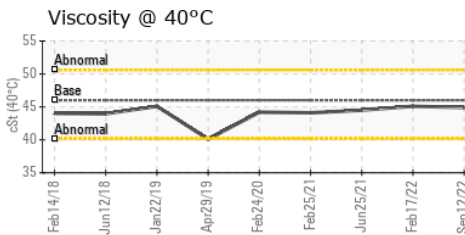
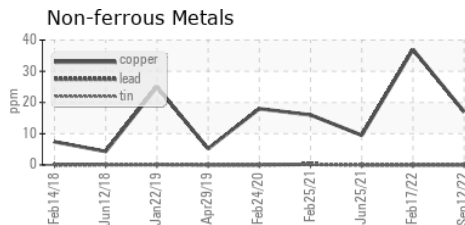
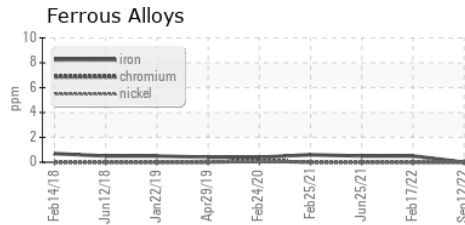
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.9	45.1

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



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC91670 **Received** : 20 Sep 2022
Lab Number : 05646604 **Diagnosed** : 22 Sep 2022
Unique Number : 10141143 **Diagnostician** : Jonathan Hester
Test Package : IND 2

VULCAN INDUSTRIES
 701 4TH AVE
 CORAOPOLIS, PA
 USA 15108
 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: