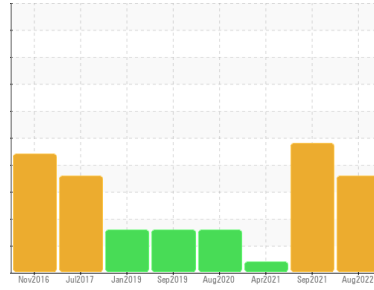


PROBLEM SUMMARY

Sample Rating Trend



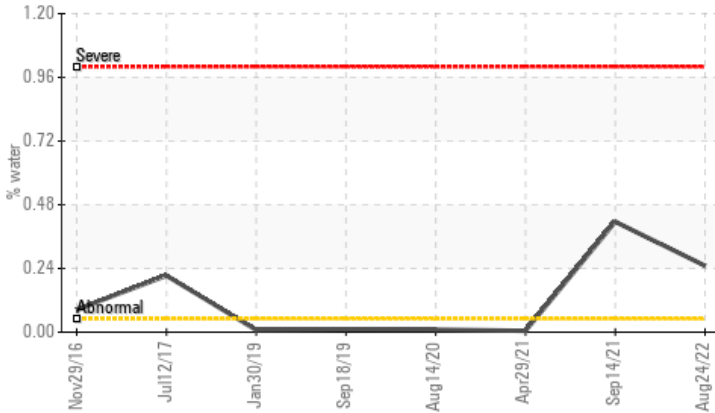
WATER



Machine Id
KAESER SM 11 2064687 (S/N 1192)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- LTR)

COMPONENT CONDITION SUMMARY

▲ Water



RECOMMENDATION

No corrective action is recommended at this time. Oil and 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.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ 0.250	▲ 0.416	0.005
ppm Water	ppm	ASTM D6304	>500	▲ 2500	▲ 4160	50.4
Debris	scalar	*Visual	NONE	▲ MODER	LIGHT	▲ MODER
Free Water	scalar	*Visual		▲ 1.0	▲ 1.0	NEG

Customer Id: PENCARTX
Sample No.: KCP48168
Lab Number: 05633630
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
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.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

14 Sep 2021 Diag: Jonathan Hester

WATER



Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. All component wear rates are normal. There is a high amount of particulates present in the oil. Free water present. There is a moderate concentration of water present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report



29 Apr 2021 Diag: Don Baldrige

VIS DEBRIS



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. 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. 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



14 Aug 2020 Diag: Don Baldrige

ISO

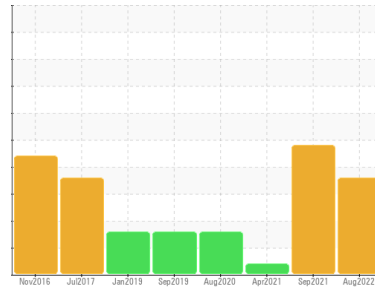


Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



Machine Id
KAESER SM 11 2064687 (S/N 1192)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- LTR)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and 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.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil. Free water present. 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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			KCP48168	KCP37971	KCP32686
Sample Date			24 Aug 2022	14 Sep 2021	29 Apr 2021
Machine Age	hrs		89041	83003	80955
Oil Age	hrs		6037	6462	4414
Oil Changed			Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	1	3	<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	<1	0	0
Aluminum	ppm	ASTM D5185m >10	<1	0	0
Lead	ppm	ASTM D5185m >10	<1	2	0
Copper	ppm	ASTM D5185m >50	13	11	6
Tin	ppm	ASTM D5185m >10	<1	0	0
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	0	19	<1
Barium	ppm	ASTM D5185m 90	2	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 100	<1	<1	<1
Calcium	ppm	ASTM D5185m 0	<1	0	0
Phosphorus	ppm	ASTM D5185m 0	8	3	0
Zinc	ppm	ASTM D5185m 0	0	<1	0
Sulfur	ppm	ASTM D5185m 23500	18055	16153	16698

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	<1	<1
Sodium	ppm	ASTM D5185m	0	<1	0
Potassium	ppm	ASTM D5185m >20	1	2	0
Water	%	ASTM D6304 >0.05	▲ 0.250	▲ 0.416	0.005
ppm Water	ppm	ASTM D6304 >500	▲ 2500	▲ 4160	50.4

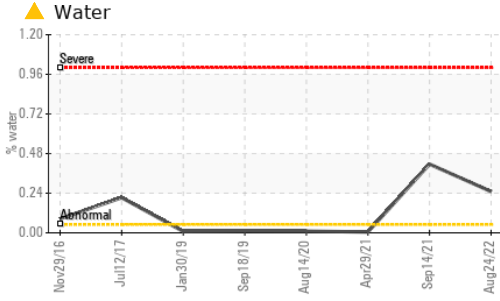
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		---	1633	---
Particles >6µm	ASTM D7647	>1300	---	890	---
Particles >14µm	ASTM D7647	>80	---	▲ 151	---
Particles >21µm	ASTM D7647	>20	---	▲ 51	---
Particles >38µm	ASTM D7647	>4	---	▲ 8	---
Particles >71µm	ASTM D7647	>3	---	1	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	---	▲ 17/14	---

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.43	0.351	0.429

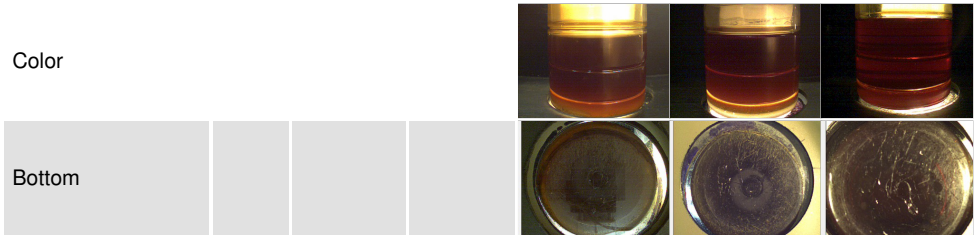
OIL ANALYSIS REPORT



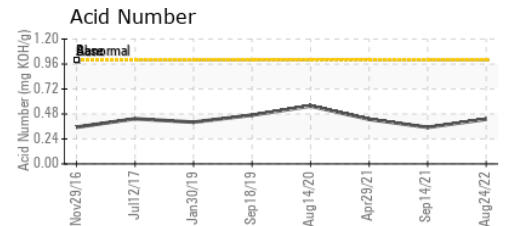
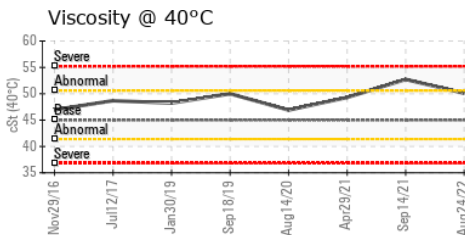
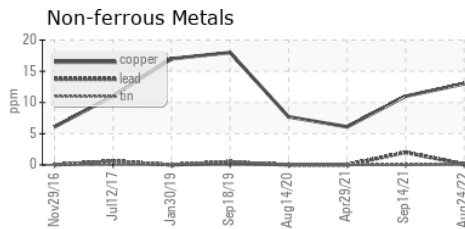
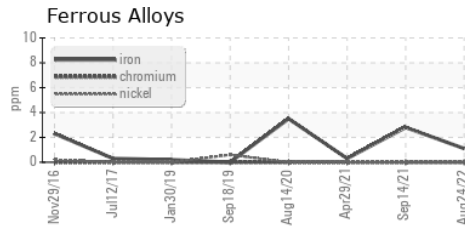
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	0.2%	NEG
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	50.1	▲ 52.72	49.3

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. : KCP48168 **Received** : 02 Sep 2022
Lab Number : 05633630 **Diagnosed** : 06 Sep 2022
Unique Number : 10118151 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

PENSKE
 2705 EISENHOWER ST
 CARROLLTON, TX
 USA 75007
 Contact:

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: