

PROBLEM SUMMARY

Sample Rating Trend

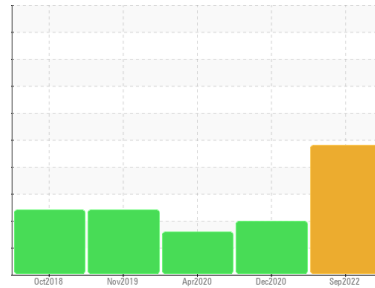
WATER



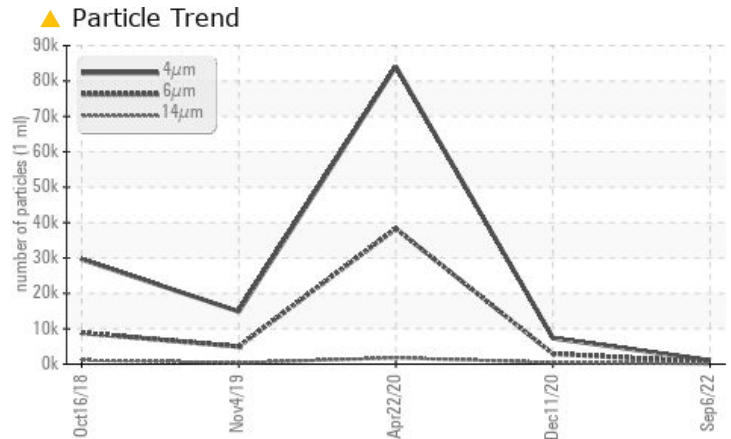
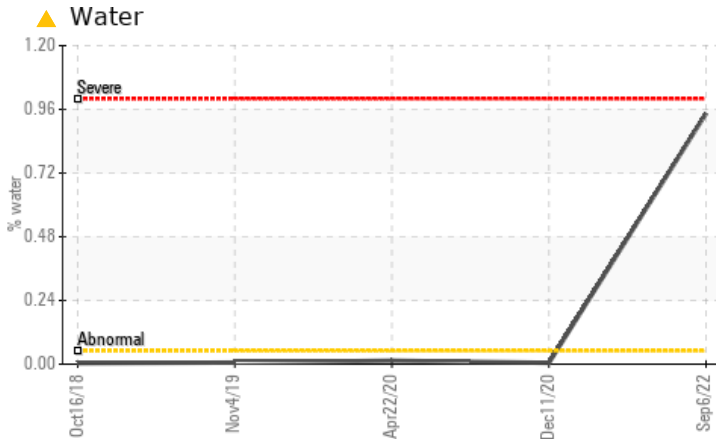
Machine Id
KAESER ASD 20 5808053 (S/N 1184)

Component
Compressor

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



COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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	▲ 0.945	0.005	0.013
ppm Water	ppm	ASTM D6304	>500	▲ 9450	59.8	137.8
Particles >14µm		ASTM D7647	>80	▲ 97	▲ 451	▲ 1767
Particles >21µm		ASTM D7647	>20	▲ 33	▲ 127	▲ 316
Particles >38µm		ASTM D7647	>4	▲ 5	2	▲ 11
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 17/16/14	▲ 19/16	▲ 22/18
Free Water	scalar	*Visual		▲ 1.0	NEG	NEG

Customer Id: FMCMAL
Sample No.: KCP02234
Lab Number: 05640366
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
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

11 Dec 2020 Diag: Doug Bogart

WEAR



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. The copper level is abnormal. 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](#)



22 Apr 2020 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. The 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](#)



04 Nov 2019 Diag: Jonathan Hester

WEAR



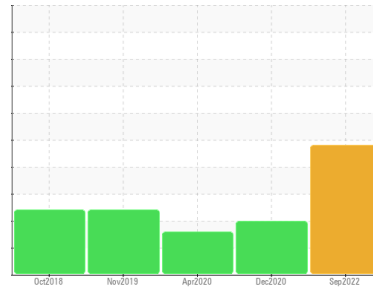
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



Machine Id
KAESER ASD 20 5808053 (S/N 1184)

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



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

There is a moderate amount of particulates present in the oil. Free water present. There is a high 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			KCP02234	KCP34258	KCP26123
Sample Date			06 Sep 2022	11 Dec 2020	22 Apr 2020
Machine Age	hrs		16832	12692	10772
Oil Age	hrs		1419	3550	1630
Oil Changed			Changed	Changed	Not Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	1	<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	<1	0	0
Aluminum	ppm	ASTM D5185m >10	<1	0	1
Lead	ppm	ASTM D5185m >10	<1	0	<1
Copper	ppm	ASTM D5185m >50	45	▲ 71	27
Tin	ppm	ASTM D5185m >10	<1	0	<1
Antimony	ppm	ASTM D5185m	---	0	<1
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	0	0
Barium	ppm	ASTM D5185m 90	0	0	19
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 100	2	0	26
Calcium	ppm	ASTM D5185m 0	0	0	2
Phosphorus	ppm	ASTM D5185m 0	3	2	2
Zinc	ppm	ASTM D5185m 0	79	50	78
Sulfur	ppm	ASTM D5185m 23500	17140	15229	20494

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	0	<1
Sodium	ppm	ASTM D5185m	0	0	4
Potassium	ppm	ASTM D5185m >20	<1	0	1
Water	%	ASTM D6304 >0.05	▲ 0.945	0.005	0.013
ppm Water	ppm	ASTM D6304 >500	▲ 9450	59.8	137.8

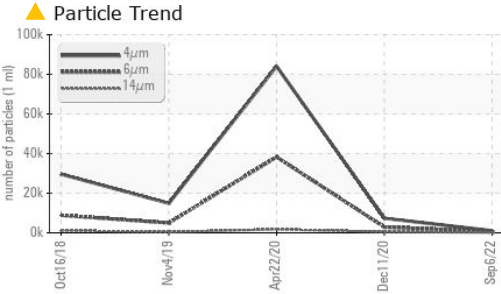
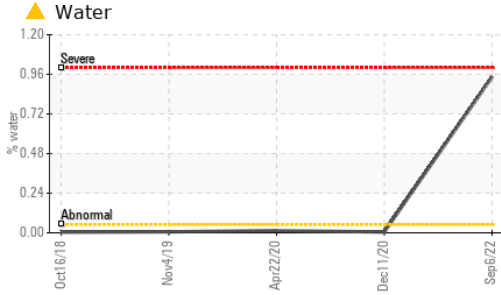
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		1046	7350	84084
Particles >6µm	ASTM D7647	>1300	570	▲ 2910	▲ 38278
Particles >14µm	ASTM D7647	>80	▲ 97	▲ 451	▲ 1767
Particles >21µm	ASTM D7647	>20	▲ 33	▲ 127	▲ 316
Particles >38µm	ASTM D7647	>4	▲ 5	2	▲ 11
Particles >71µm	ASTM D7647	>3	1	0	1
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 17/16/14	▲ 19/16	▲ 22/18

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.41	0.454	0.465

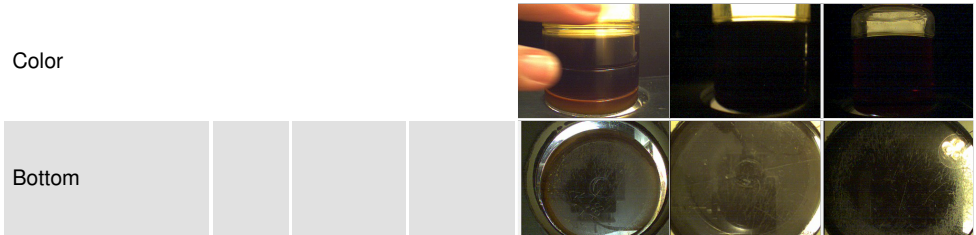
OIL ANALYSIS REPORT



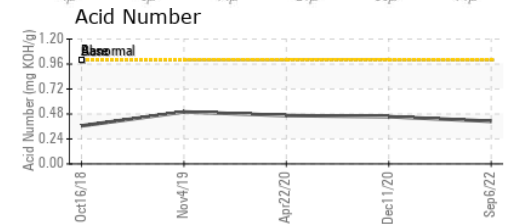
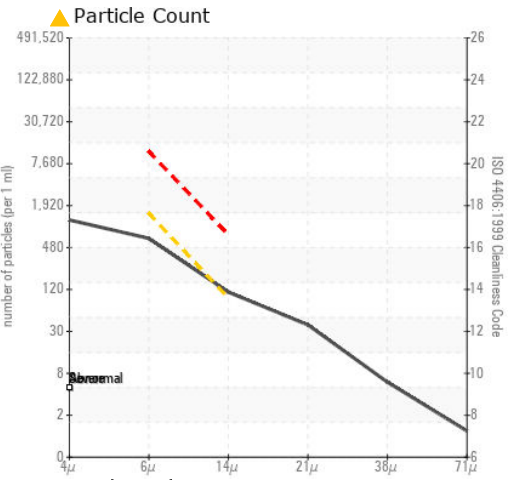
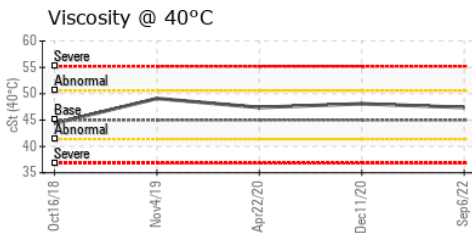
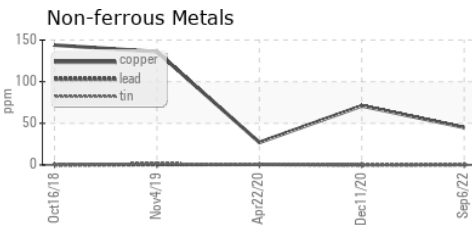
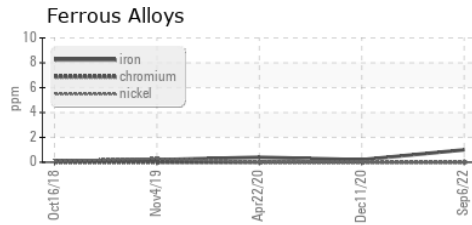
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	47.4	48.1

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. : KCP02234 Received : 13 Sep 2022
 Lab Number : 05640366 Diagnosed : 15 Sep 2022
 Unique Number : 10129896 Diagnostician : Jonathan Hester
 Test Package : IND 2 (Additional Tests: KF, PrtCount)

F & M CALLAHAN & SONS INC
 22 SHARON ST
 MALDEN, MA
 USA 02148
 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: