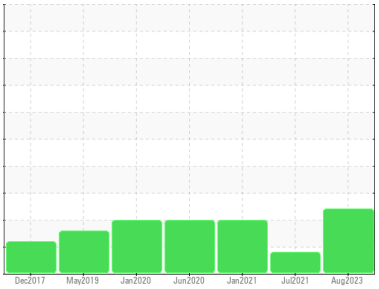
PROBLEM SUMMARY

Sample Rating Trend

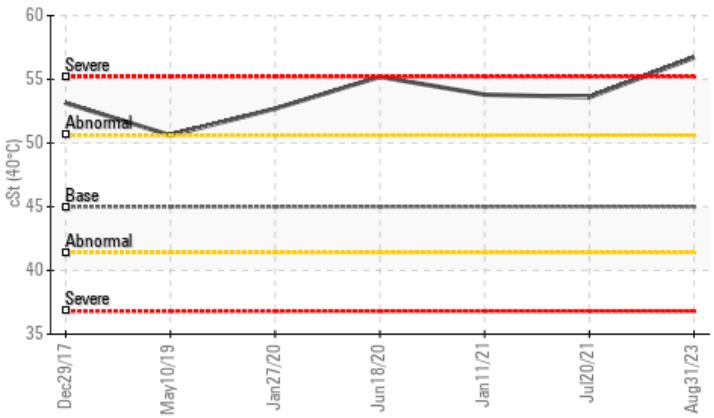


VISCOSITY

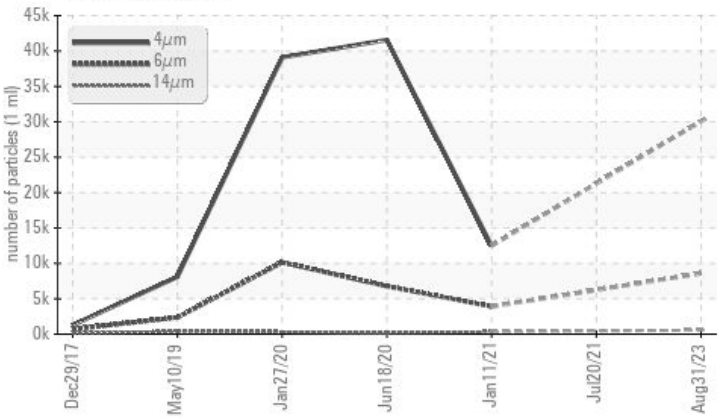
Machine Id
KAESER SM 10 4948114 (S/N 1657)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

Viscosity @ 40°C



Particle Trend



RECOMMENDATION

The 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	▲ **8584**	---	▲ 3900
Particles >14µm		ASTM D7647	>80	▲ **553**	---	▲ 343
Particles >21µm		ASTM D7647	>20	▲ **155**	---	▲ 111
Particles >38µm		ASTM D7647	>4	▲ **12**	---	▲ 6
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **22/20/16**	---	▲ 19/16
Visc @ 40°C	cSt	ASTM D445	45	▲ **56.7**	▲ 53.6	▲ 53.8

Customer Id: FEDMID
Sample No.: KCPA004772
Lab Number: 05960651
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

20 Jul 2021 Diag: Angela Borella

VISCOSITY

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. 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 oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

11 Jan 2021 Diag: Don Baldridge

VISCOSITY

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 oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

18 Jun 2020 Diag: Jonathan Hester

VISCOSITY

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 oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

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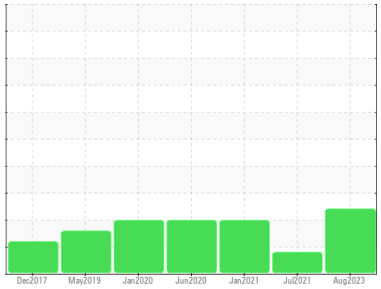
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
KAESER SM 10 4948114 (S/N 1657)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
The 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 oil viscosity is higher than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA004772**	KCP42516	KCP31799
Sample Date		Client Info		**31 Aug 2023**	20 Jul 2021	11 Jan 2021
Machine Age	hrs	Client Info		**55813**	43304	39843
Oil Age	hrs	Client Info		**0**	3000	3267
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**2**	<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	<1
Aluminum	ppm	ASTM D5185m	>10	**0**	1	0
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>50	**9**	7	9
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**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	<1	<1
Barium	ppm	ASTM D5185m	90	**0**	0	<1
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	100	**3**	16	27
Calcium	ppm	ASTM D5185m	0	**<1**	0	0
Phosphorus	ppm	ASTM D5185m	0	**5**	9	2
Zinc	ppm	ASTM D5185m	0	**14**	11	55
Sulfur	ppm	ASTM D5185m	23500	**23325**	19593	18687

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**2**	<1	2
Sodium	ppm	ASTM D5185m		**5**	4	30
Potassium	ppm	ASTM D5185m	>20	**1**	<1	6
Water	%	ASTM D6304	>0.05	**0.004**	0.016	0.010
ppm Water	ppm	ASTM D6304	>500	**43.1**	164.9	107.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**30076**	---	12494
Particles >6µm		ASTM D7647	>1300	▲ **8584**	---	▲ 3900
Particles >14µm		ASTM D7647	>80	▲ **553**	---	▲ 343
Particles >21µm		ASTM D7647	>20	▲ **155**	---	▲ 111
Particles >38µm		ASTM D7647	>4	▲ **12**	---	▲ 6
Particles >71µm		ASTM D7647	>3	**1**	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **22/20/16**	---	▲ 19/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.57**	0.428	0.490

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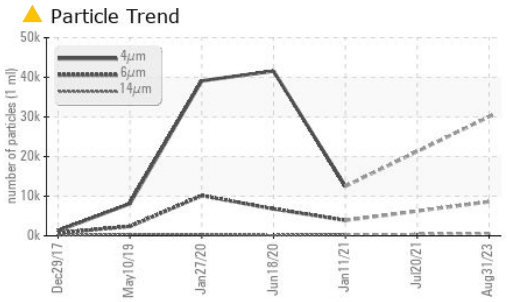
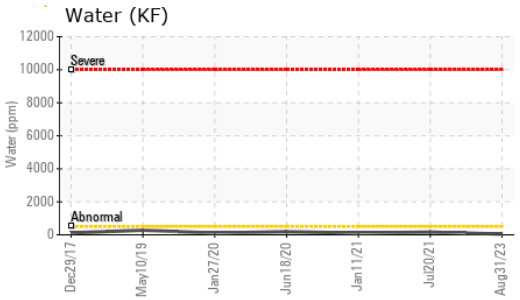
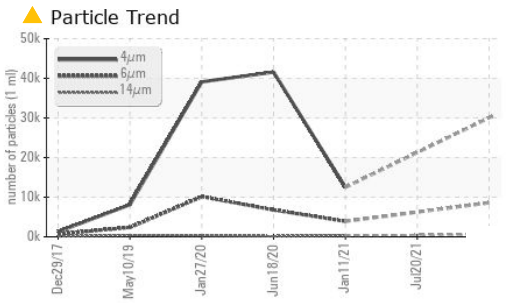
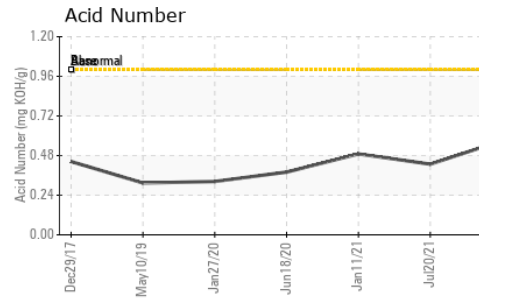
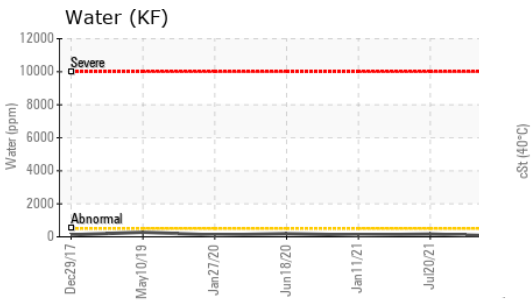
OIL ANALYSIS REPORT





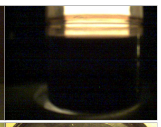
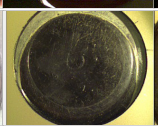




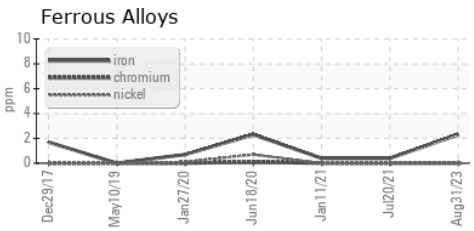


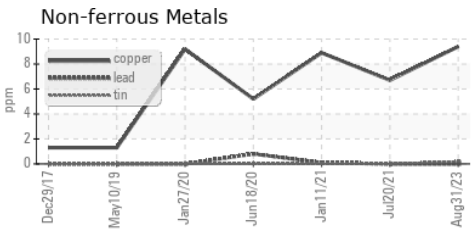
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	▲ MODER	LIGHT
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	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

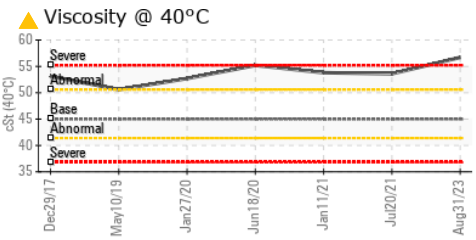
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	▲ **56.7**	▲ 53.6	▲ 53.8

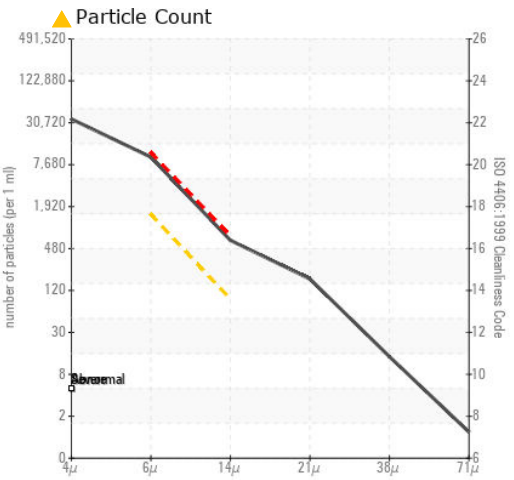
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

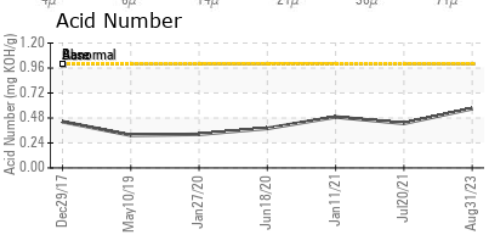
GRAPHS











ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA004772 **Received** : 25 Sep 2023
Lab Number : 05960651 **Diagnosed** : 27 Sep 2023
Unique Number : 10661864 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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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MIDDLETOWN, PA
US 17057
Contact: Service Manager

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F: