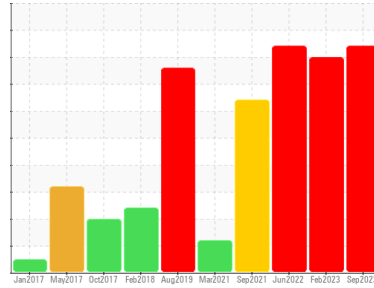


PROBLEM SUMMARY

Sample Rating Trend



WEAR



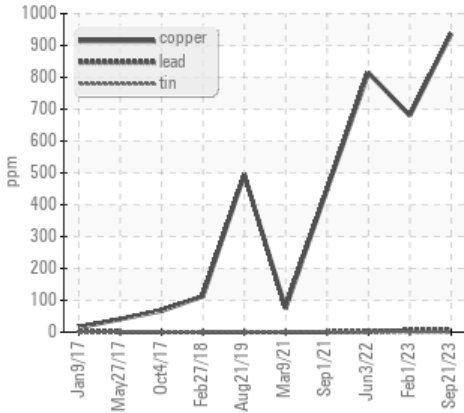
Machine Id
KAESER SM 10 4187007 (S/N 1102)

Component
Compressor

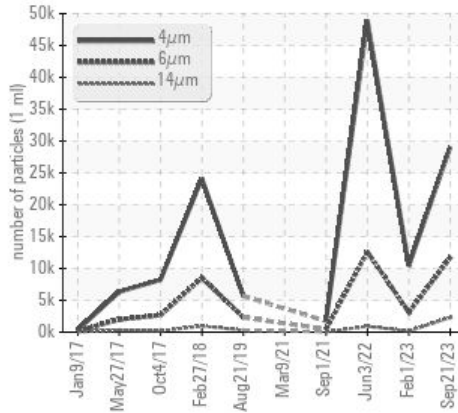
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

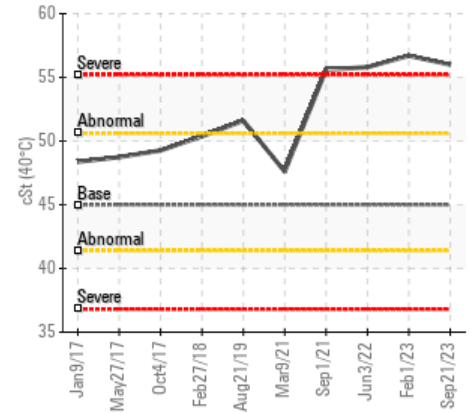
Non-ferrous Metals



Particle Trend



Viscosity @ 40°C



RECOMMENDATION

The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	SEVERE	
Copper	ppm	ASTM D5185m	>50	937	680	814
Particles >6µm		ASTM D7647	>1300	11681	3109	12605
Particles >14µm		ASTM D7647	>80	2319	157	906
Particles >21µm		ASTM D7647	>20	723	22	146
Particles >38µm		ASTM D7647	>4	28	1	5
Oil Cleanliness		ISO 4406 (c)	>--/17/13	22/21/18	21/19/14	23/21/17

Customer Id: PAUFRE
Sample No.: KCPA006398
Lab Number: 06073948
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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

01 Feb 2023 Diag: Don Baldrige

WEAR



Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The copper level is severe. Bearing and/or bushing wear is indicated. 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



03 Jun 2022 Diag: Don Baldrige

WEAR



Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The copper level is severe. Bearing and/or bushing wear is indicated. 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



01 Sep 2021 Diag: Don Baldrige

WEAR



Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The copper level is severe. Bearing and/or bushing wear is indicated. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

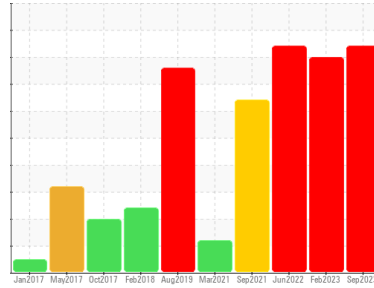
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
KAESER SM 10 4187007 (S/N 1102)

Component
Compressor

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

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

The copper level is severe. Bearing and/or bushing wear is indicated.

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		KCPA006398	KCP55420	KCP51333
Sample Date	Client Info		21 Sep 2023	01 Feb 2023	03 Jun 2022
Machine Age	hrs	Client Info	86377	81529	76476
Oil Age	hrs	Client Info	0	3000	3000
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			SEVERE	SEVERE	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	<1	<1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	<1	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	8	6	<1
Copper	ppm	ASTM D5185m >50	937	680	814
Tin	ppm	ASTM D5185m >10	0	<1	<1
Antimony	ppm	ASTM D5185m	---	---	---
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	0	0
Barium	ppm	ASTM D5185m 90	0	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	0	0	0
Phosphorus	ppm	ASTM D5185m 0	0	10	11
Zinc	ppm	ASTM D5185m 0	87	238	338
Sulfur	ppm	ASTM D5185m 23500	11369	14824	12921

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	1	2
Sodium	ppm	ASTM D5185m	0	<1	1
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304 >0.05	0.007	0.007	0.002
ppm Water	ppm	ASTM D6304 >500	79	75.3	17.0

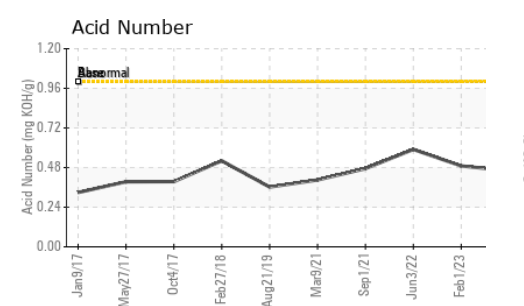
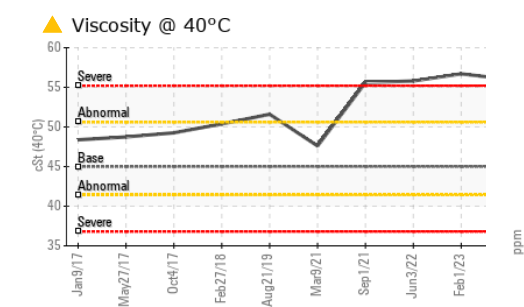
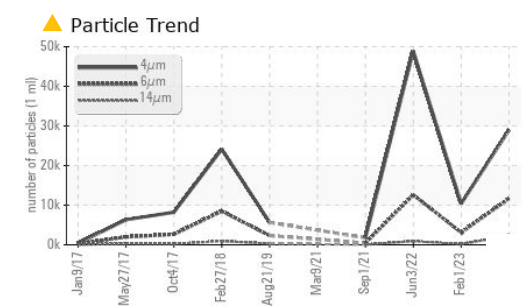
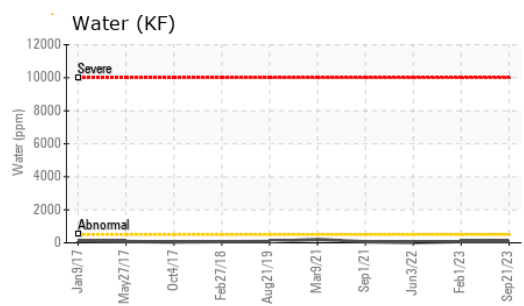
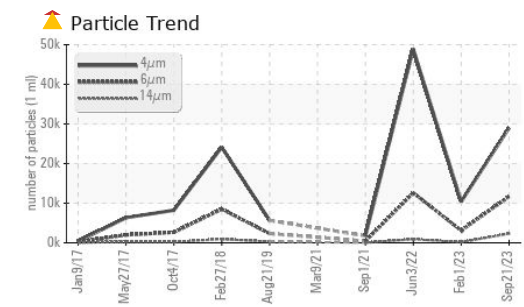
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		29023	10409	48892
Particles >6µm	ASTM D7647	>1300	11681	3109	12605
Particles >14µm	ASTM D7647	>80	2319	157	906
Particles >21µm	ASTM D7647	>20	723	22	146
Particles >38µm	ASTM D7647	>4	28	1	5
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	22/21/18	21/19/14	23/21/17

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.46	0.49	0.59

OIL ANALYSIS REPORT

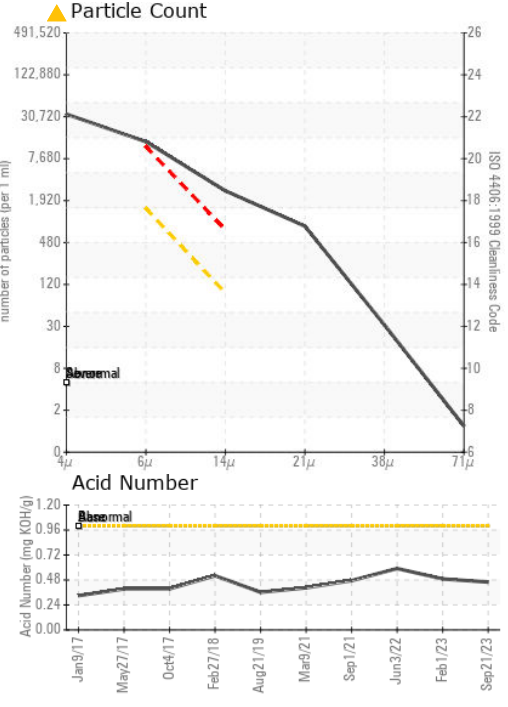
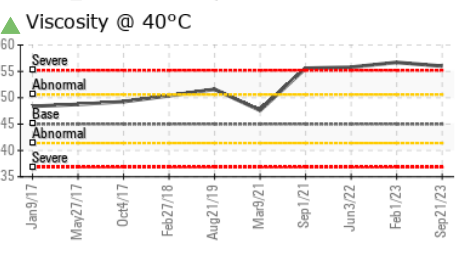
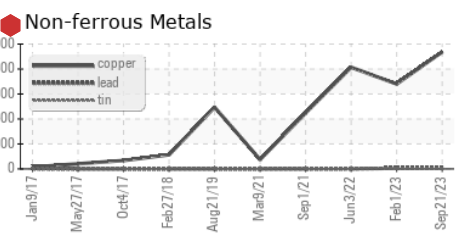
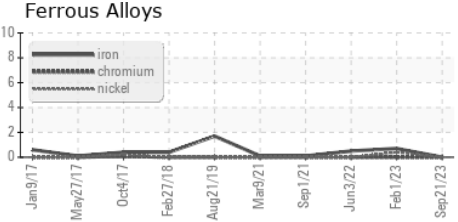


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	▲ 56.0	▲ 56.7	▲ 55.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA006398 **Received** : 30 Jan 2024
Lab Number : 06073948 **Diagnosed** : 31 Jan 2024
Unique Number : 10856039 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

PAULS DAIRY FARM
W2828 MEADOWLARK RD
FREDONIA, WI
US 53021
Contact: ANDREW PAULUS
andrewmpaulus@gmail.com

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)