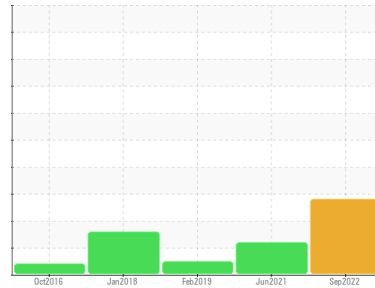


# PROBLEM SUMMARY

Sample Rating Trend



**WEAR**



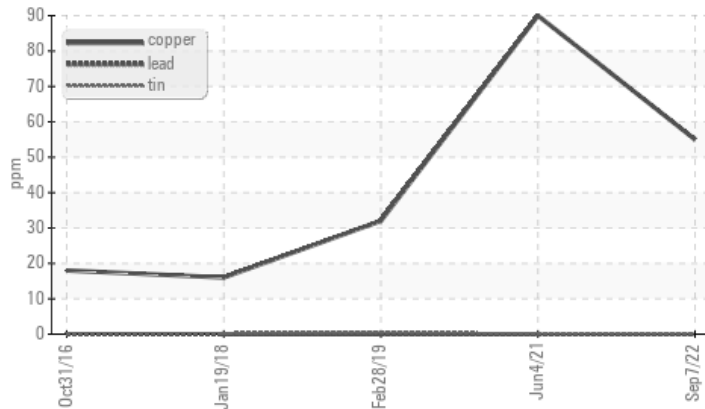
Machine Id  
**KAESER SX 6 1361223 (S/N 1002)**

Component  
**Compressor**

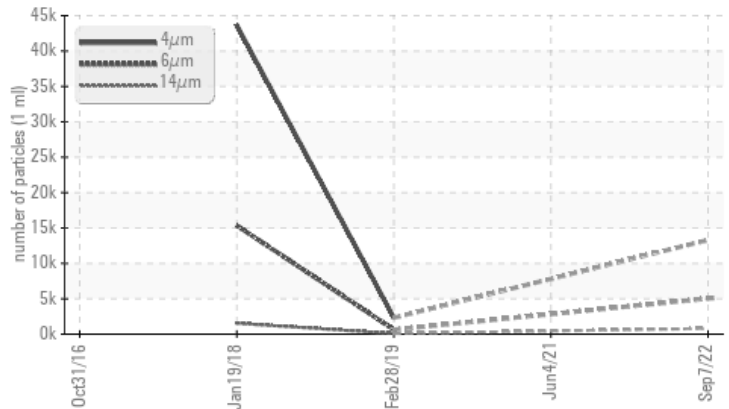
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Non-ferrous Metals



### ▲ Particle Trend



## RECOMMENDATION

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.

## PROBLEMATIC TEST RESULTS

Sample Status	Unit	ASTM	Value	ABNORMAL	ABNORMAL	NORMAL
Copper	ppm	ASTM D5185m	>50	▲ 55	▲ 90	32
Particles >6µm		ASTM D7647	>1300	▲ 5032	---	635
Particles >14µm		ASTM D7647	>80	▲ 797	---	80
Particles >21µm		ASTM D7647	>20	▲ 151	---	28
Particles >38µm		ASTM D7647	>4	▲ 5	---	1
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 21/20/17	---	16/13

Customer Id: CITSWE  
Sample No.: KCP37372  
Lab Number: 05648340  
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](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto: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

### 04 Jun 2021 Diag: Don Baldrige

#### WEAR



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. The copper level is abnormal. All other 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](#)



### 28 Feb 2019 Diag: Don Baldrige

#### 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](#)



### 19 Jan 2018 Diag: Doug Bogart

#### ISO



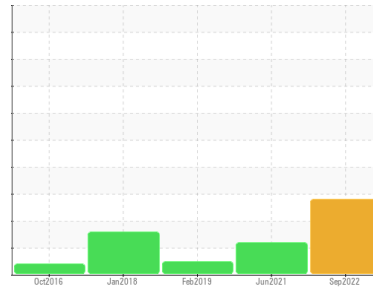
We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

[view report](#)



Machine Id  
**KAESER SX 6 1361223 (S/N 1002)**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**



## DIAGNOSIS

### ▲ Recommendation

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.

### ▲ Wear

The copper level has decreased, but is still abnormal. All other component wear rates are normal.

### ▲ Contamination

There is a high amount of particulates 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			<b>KCP37372</b>	KCP35799	KCP00329
Sample Date			<b>07 Sep 2022</b>	04 Jun 2021	28 Feb 2019
Machine Age	hrs		<b>41342</b>	40562	38514
Oil Age	hrs		<b>780</b>	785	3000
Oil Changed			<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m	>50	<b>4</b>	3	1
Chromium	ppm ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm ASTM D5185m	>3	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m	>10	<b>&lt;1</b>	0	0
Lead	ppm ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm ASTM D5185m	>50	<b>▲ 55</b>	▲ 90	32
Tin	ppm ASTM D5185m	>10	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m		<b>---</b>	0	0
Vanadium	ppm ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m		<b>0</b>	12	0
Barium	ppm ASTM D5185m	90	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m	90	<b>0</b>	0	0
Calcium	ppm ASTM D5185m	2	<b>0</b>	0	0
Phosphorus	ppm ASTM D5185m		<b>9</b>	1	1
Zinc	ppm ASTM D5185m		<b>118</b>	137	69
Sulfur	ppm ASTM D5185m		<b>21912</b>	14322	18429

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	<b>1</b>	0	<1
Sodium	ppm ASTM D5185m		<b>0</b>	<1	0
Potassium	ppm ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Water	% ASTM D6304	>0.05	<b>0.010</b>	0.004	0.001
ppm Water	ppm ASTM D6304	>500	<b>105.9</b>	47.0	10

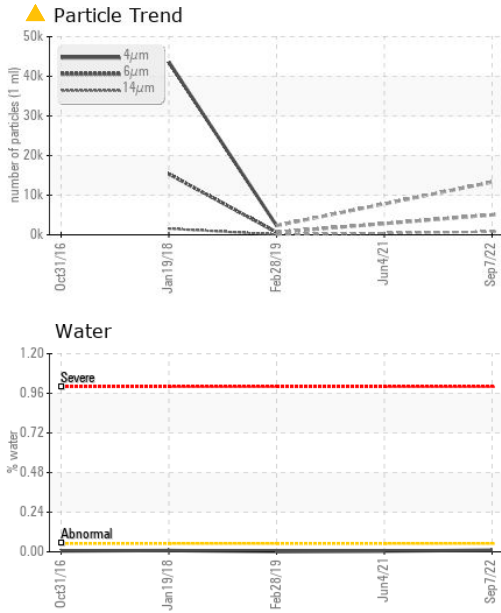
## FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>13304</b>	---	2316
Particles >6µm	ASTM D7647	>1300	<b>▲ 5032</b>	---	635
Particles >14µm	ASTM D7647	>80	<b>▲ 797</b>	---	80
Particles >21µm	ASTM D7647	>20	<b>▲ 151</b>	---	28
Particles >38µm	ASTM D7647	>4	<b>▲ 5</b>	---	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>▲ 21/20/17</b>	---	16/13

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	0.4	<b>0.41</b>	0.428	0.411

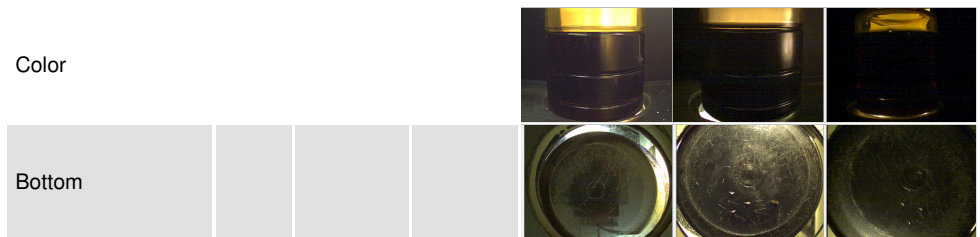
# OIL ANALYSIS REPORT



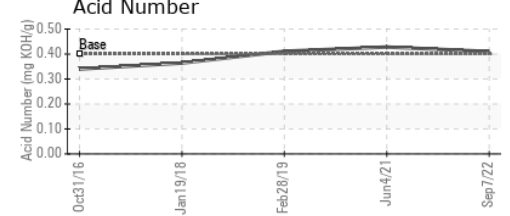
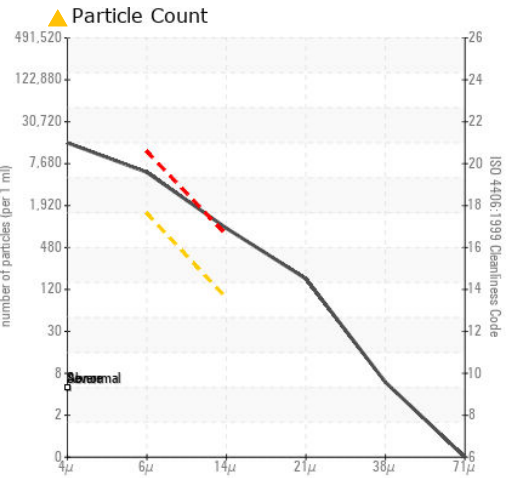
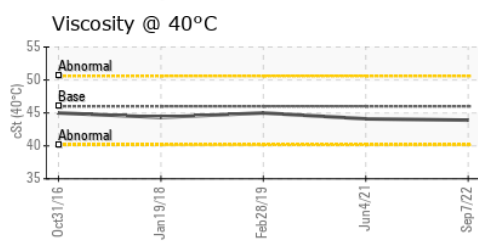
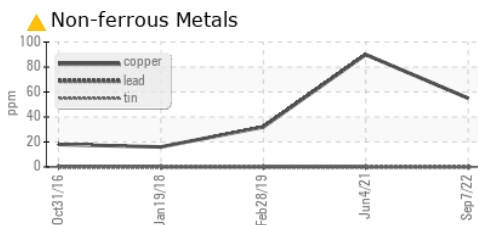
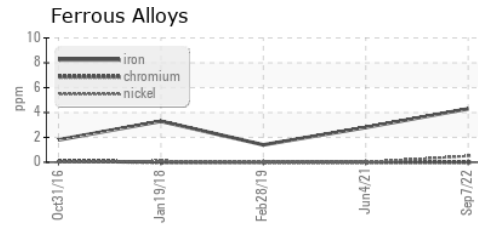
PARAMETER	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG

PARAMETER	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	<b>43.9</b>	44.1

PARAMETER	method	limit/base	current	history 1	history 2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP37372 **Received** : 22 Sep 2022  
**Lab Number** : 05648340 **Diagnosed** : 24 Sep 2022  
**Unique Number** : 10142879 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**CITY OF SWEETWATER**  
 169 CR 217  
 SWEETWATER, TX  
 USA 79556  
 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: