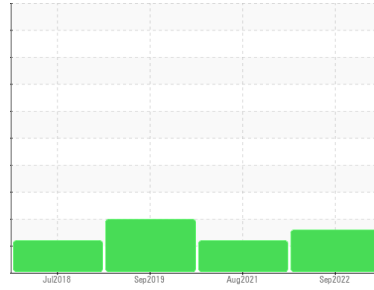


# PROBLEM SUMMARY

## Sample Rating Trend



ISO



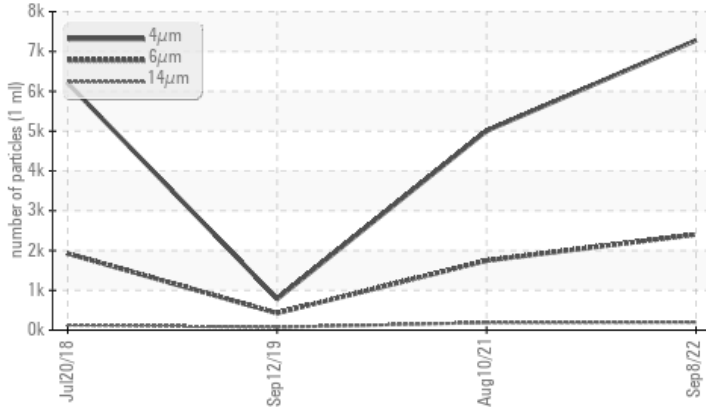
Machine Id  
**KAESER SK 15 3897973 (S/N 1344)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) M-460 (--- QTS)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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	ASTM D7647	ISO 4406 (c)	ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	>1300	▲ 2404	▲ 1747	426	
Particles >14µm	>80	▲ 197	▲ 189	72	
Particles >21µm	>20	▲ 27	▲ 52	24	
Oil Cleanliness	>--/17/13	▲ 20/18/15	▲ 18/15	16/13	

Customer Id: COBMAROH  
Sample No.: KCP50369  
Lab Number: 05648929  
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](mailto:jhester@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

### 10 Aug 2021 Diag: Don Baldrige

ISO



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. 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](#)



### 12 Sep 2019 Diag: Don Baldrige

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. Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid.

[view report](#)



### 20 Jul 2018 Diag: Angela Borella

ISO



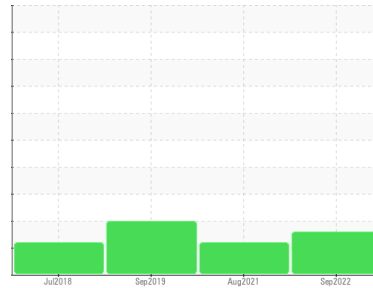
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



Machine Id  
**KAESER SK 15 3897973 (S/N 1344)**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) M-460 (--- QTS)**



## DIAGNOSIS

### ▲ Recommendation

Oil and 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 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>KCP50369</b>	KCP41562	KCP23703
Sample Date			<b>08 Sep 2022</b>	10 Aug 2021	12 Sep 2019
Machine Age	hrs		<b>36862</b>	33260	27631
Oil Age	hrs		<b>3602</b>	2915	3284
Oil Changed			<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m	>50	<b>&lt;1</b>	<1	1
Chromium	ppm ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m	>10	<b>0</b>	0	<1
Lead	ppm ASTM D5185m	>10	<b>0</b>	0	2
Copper	ppm ASTM D5185m	>50	<b>2</b>	<1	2
Tin	ppm ASTM D5185m	>10	<b>0</b>	0	0
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	0	<b>0</b>	<1	<1
Barium	ppm ASTM D5185m	90	<b>0</b>	<1	1
Molybdenum	ppm ASTM D5185m	0	<b>0</b>	<1	<1
Manganese	ppm ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm ASTM D5185m	100	<b>64</b>	80	55
Calcium	ppm ASTM D5185m	0	<b>0</b>	7	0
Phosphorus	ppm ASTM D5185m	0	<b>11</b>	12	2
Zinc	ppm ASTM D5185m	0	<b>1</b>	0	5
Sulfur	ppm ASTM D5185m	23500	<b>21528</b>	17869	16691

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	<b>&lt;1</b>	0	1
Sodium	ppm ASTM D5185m		<b>13</b>	5	13
Potassium	ppm ASTM D5185m	>20	<b>1</b>	<1	9
Water	% ASTM D6304	>0.05	<b>0.030</b>	0.030	▲ 0.214
ppm Water	ppm ASTM D6304	>500	<b>309.3</b>	303.1	▲ 2140

## FLUID CLEANLINESS

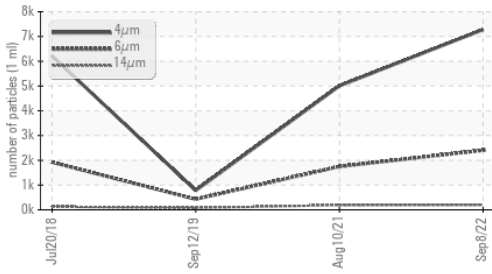
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>7279</b>	5005	782
Particles >6µm	ASTM D7647	>1300	▲ <b>2404</b>	▲ 1747	426
Particles >14µm	ASTM D7647	>80	▲ <b>197</b>	▲ 189	72
Particles >21µm	ASTM D7647	>20	▲ <b>27</b>	▲ 52	24
Particles >38µm	ASTM D7647	>4	<b>1</b>	3	3
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ <b>20/18/15</b>	▲ 18/15	16/13

## FLUID DEGRADATION

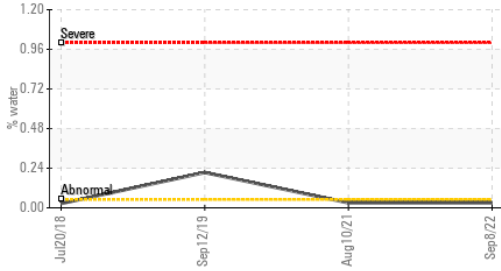
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	1.0	<b>0.45</b>	0.361	0.355

# OIL ANALYSIS REPORT

## ▲ Particle Trend



## Water



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	LIGHT	▲ 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	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

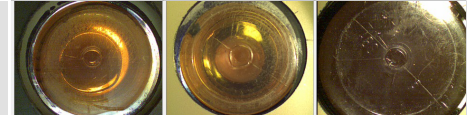
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445 45	45.9	45.4	45.9

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
---------------	--------	------------	---------	-----------	-----------

Color

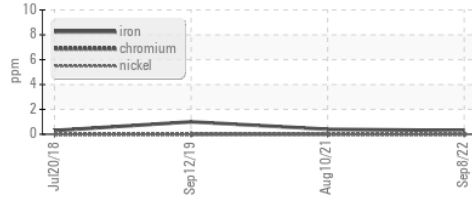


Bottom

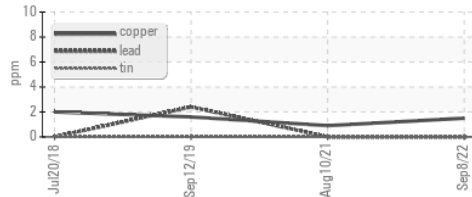


## GRAPHS

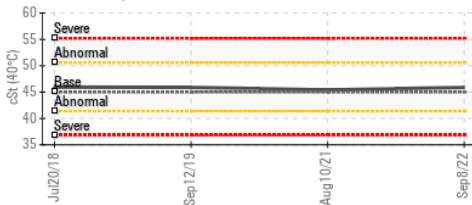
### Ferrous Alloys



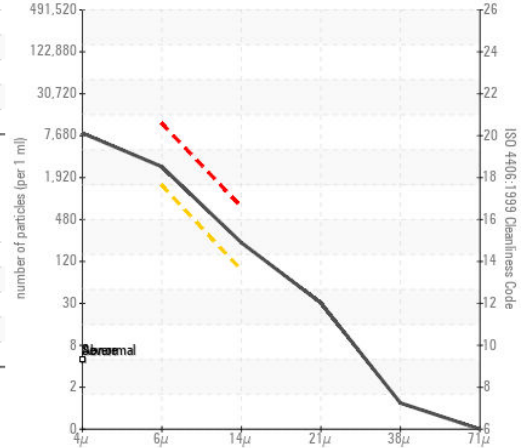
### Non-ferrous Metals



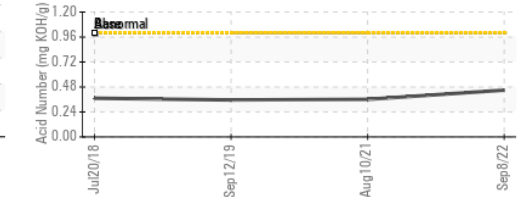
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : KCP50369 Received : 22 Sep 2022  
 Lab Number : 05648929 Diagnosed : 26 Sep 2022  
 Unique Number : 10143468 Diagnostician : Jonathan Hester  
 Test Package : IND 2 ( Additional Tests: KF, PrtCount )

**COBB AUTO SALES**  
 1305 PIKE STREET  
 MARIETTA, OH  
 USA 45750  
 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: