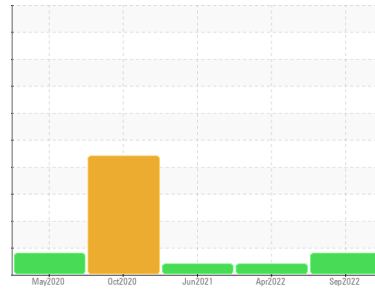


# PROBLEM SUMMARY

Sample Rating Trend



ISO



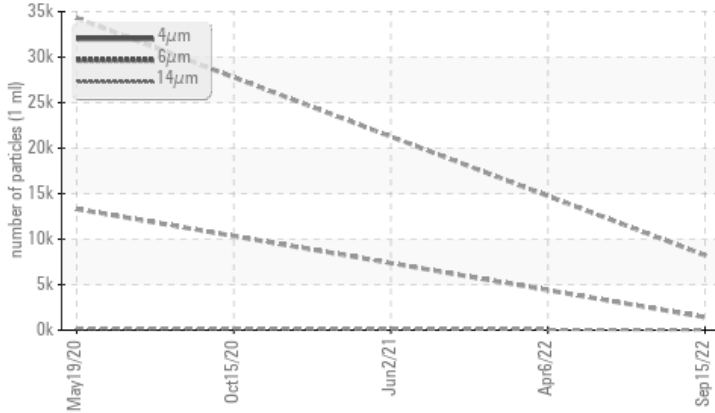
Machine Id  
**6463292 (S/N Reductor principal)**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

### ▲ 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		ATTENTION	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647 >1300	▲ 1422	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ 20/18/13	---	---

Customer Id: AMACHAKC  
Sample No.: KCP46167  
Lab Number: 05646587  
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

### 06 Apr 2022 Diag: Jonathan Hester

#### VIS DEBRIS



The 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. All 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



### 02 Jun 2021 Diag: Angela Borella

#### VIS DEBRIS



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. All 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



### 15 Oct 2020 Diag: Angela Borella

#### WATER



We advise that you shut down the unit and follow the water drain-off procedure for this component. The 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. There is a moderate amount of visible silt present in the sample. Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid.

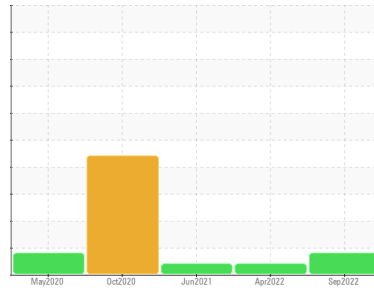
view report



Machine Id  
**6463292 (S/N Reductor principal)**

Component  
**Compressor**

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



## 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

All component wear rates are normal.

### ▲ Contamination

There is a moderate amount of silt (particulates < 14 microns in size) 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>KCP46167</b>	KCP44390	KCP33752
Sample Date			<b>15 Sep 2022</b>	06 Apr 2022	02 Jun 2021
Machine Age	hrs		<b>13674</b>	11187	7318
Oil Age	hrs		<b>5000</b>	1500	6000
Oil Changed			<b>Changed</b>	Not Changd	Changed
Sample Status			<b>ATTENTION</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	<1
Aluminum	ppm ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Lead	ppm ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm ASTM D5185m	>50	<b>3</b>	2	4
Tin	ppm ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Antimony	ppm ASTM D5185m		<b>---</b>	---	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>	0	11
Barium	ppm ASTM D5185m	90	<b>31</b>	27	17
Molybdenum	ppm ASTM D5185m		<b>0</b>	0	0
Manganese	ppm ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m	90	<b>62</b>	84	61
Calcium	ppm ASTM D5185m	2	<b>2</b>	4	1
Phosphorus	ppm ASTM D5185m		<b>1</b>	7	3
Zinc	ppm ASTM D5185m		<b>2</b>	<1	4
Sulfur	ppm ASTM D5185m		<b>21041</b>	16470	14982

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	<b>1</b>	1	1
Sodium	ppm ASTM D5185m		<b>22</b>	31	25
Potassium	ppm ASTM D5185m	>20	<b>5</b>	8	7
Water	% ASTM D6304	>0.05	<b>0.024</b>	0.020	0.028
ppm Water	ppm ASTM D6304	>500	<b>244.7</b>	205.3	280.0

## FLUID CLEANLINESS

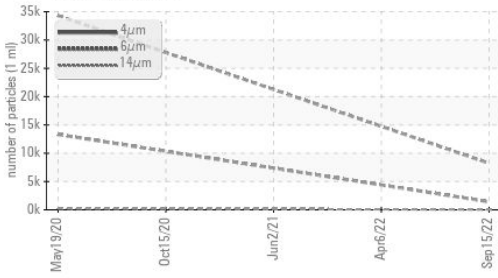
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>8226</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 1422</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>41</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>6</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>0</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>▲ 20/18/13</b>	---	---

## FLUID DEGRADATION

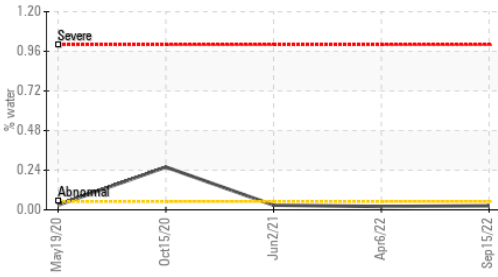
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	0.4	<b>0.33</b>	0.31	0.308

# OIL ANALYSIS REPORT

## ▲ Particle Trend



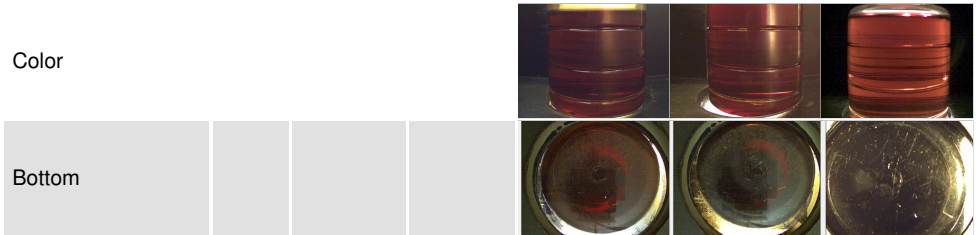
## Water



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	▲ MODER	▲ 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	NEG
Free Water	scalar	*Visual		NEG	NEG

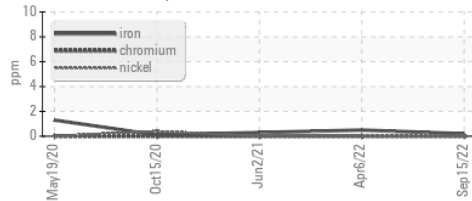
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445 46	45.7	44.6	44.5

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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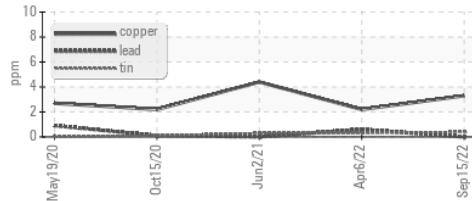


## GRAPHS

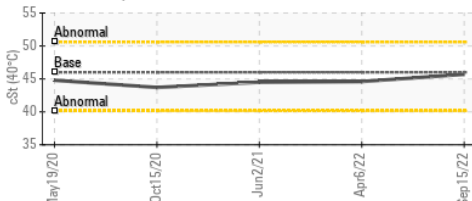
### Ferrous Alloys



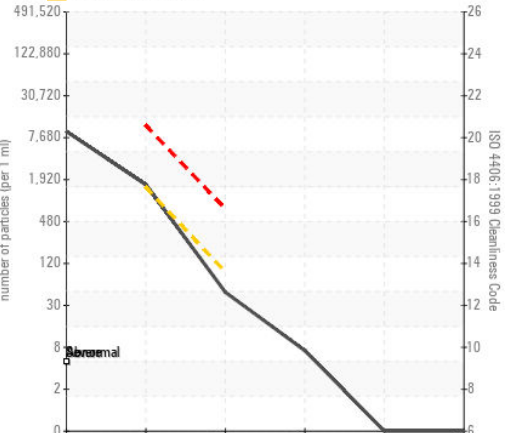
### Non-ferrous Metals



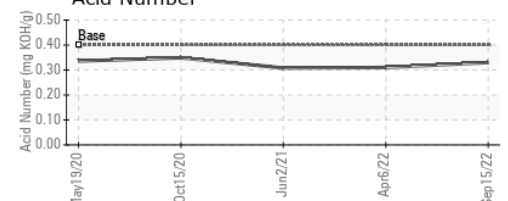
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP46167 **Received** : 20 Sep 2022  
**Lab Number** : 05646587 **Diagnosed** : 22 Sep 2022  
**Unique Number** : 10141126 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**AMAZON**  
 8000 TUCKASEEGEE RD  
 CHARLOTTE, NC  
 USA 28214  
 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: