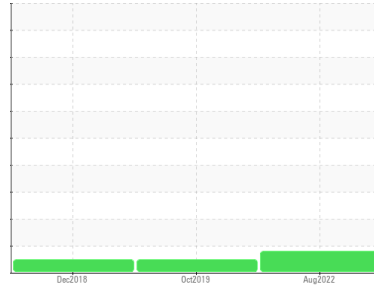


# PROBLEM SUMMARY

Sample Rating Trend



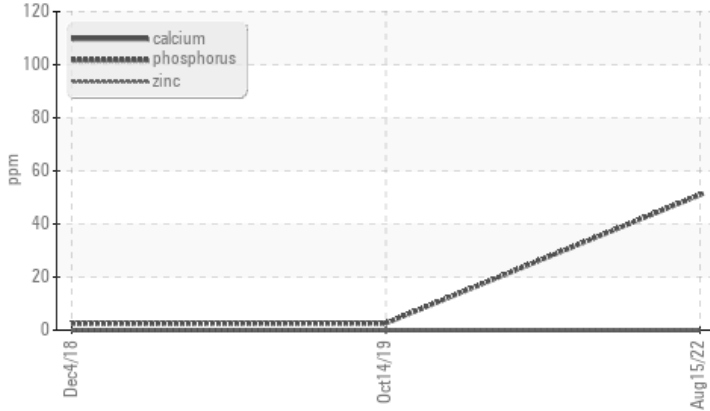
## ADDITIVES



Machine Id  
**KAESER CSD 100 4891625 - MAHLE (S/N 1156)**  
Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

### COMPONENT CONDITION SUMMARY

#### ▲ Additives



### 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			ATTENTION	NORMAL	NORMAL
Phosphorus	ppm	ASTM D5185m	▲ 51	3	2
Sulfur	ppm	ASTM D5185m	▲ 3000	14480	10421

Customer Id: KAEFRE  
Sample No.: KCP48331  
Lab Number: 05638595  
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](mailto:angela.borella@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

### 14 Oct 2019 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 04 Dec 2018 Diag: Doug Bogart

NORMAL



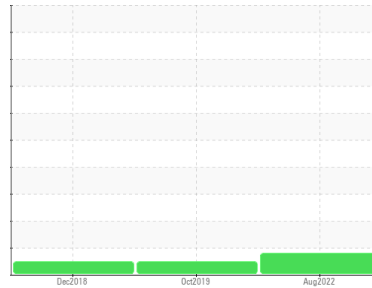
Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



# OIL ANALYSIS REPORT

Sample Rating Trend



**ADDITIVES**



Machine Id  
**KAESER CSD 100 4891625 - MAHLE (S/N 1156)**

Component

**Compressor**

Fluid

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

## 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

The amount and size of particulates present in the system are acceptable.

### ▲ Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			<b>KCP48331</b>	KC70751	KCP13658
Sample Date			<b>15 Aug 2022</b>	14 Oct 2019	04 Dec 2018
Machine Age	hrs		<b>57465</b>	35775	29087
Oil Age	hrs		<b>0</b>	4540	4170
Oil Changed			<b>Changed</b>	Not Changd	Not Changed
Sample Status			<b>ATTENTION</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m	>50	<b>1</b>	<1	0
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>	<1	0
Aluminum	ppm ASTM D5185m	>10	<b>6</b>	<1	<1
Lead	ppm ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m	>50	<b>2</b>	6	8
Tin	ppm ASTM D5185m	>10	<b>&lt;1</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>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m		<b>0</b>	0	0
Barium	ppm ASTM D5185m	90	<b>0</b>	20	0
Molybdenum	ppm ASTM D5185m		<b>0</b>	0	0
Manganese	ppm ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185m	90	<b>1</b>	18	0
Calcium	ppm ASTM D5185m	2	<b>0</b>	0	0
Phosphorus	ppm ASTM D5185m		<b>▲ 51</b>	3	2
Zinc	ppm ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm ASTM D5185m		<b>▲ 3000</b>	14480	10421

## 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>0</b>	0	0
Potassium	ppm ASTM D5185m	>20	<b>1</b>	<1	0
Water	% ASTM D6304	>0.05	<b>0.009</b>	0.015	0.005
ppm Water	ppm ASTM D6304	>500	<b>92.0</b>	156.5	50

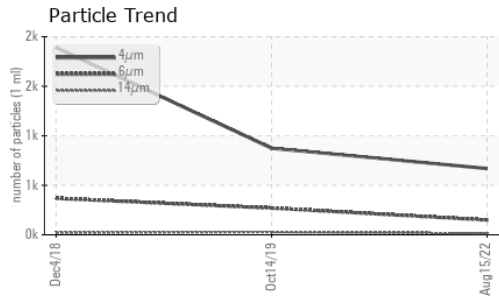
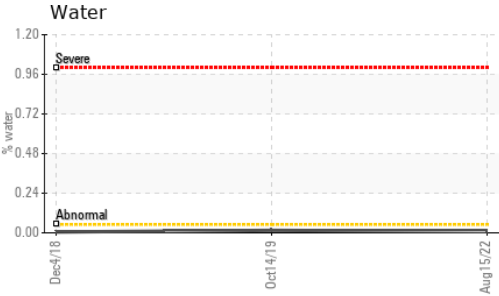
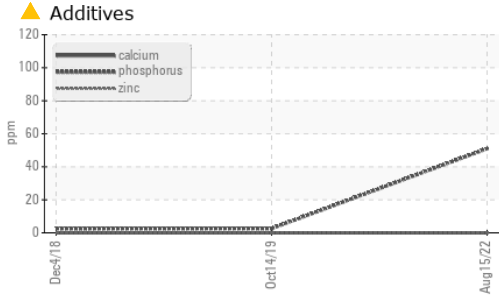
## FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>669</b>	874	1891
Particles >6µm	ASTM D7647	>1300	<b>149</b>	270	368
Particles >14µm	ASTM D7647	>80	<b>14</b>	28	20
Particles >21µm	ASTM D7647	>20	<b>4</b>	7	9
Particles >38µm	ASTM D7647	>4	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>17/14/11</b>	15/12	16/11

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	0.4	<b>0.38</b>	0.298	0.281

# OIL ANALYSIS REPORT



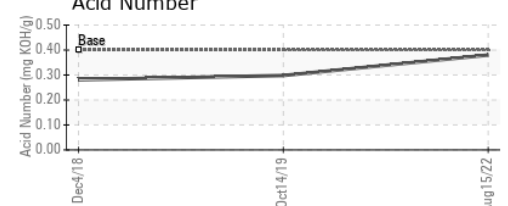
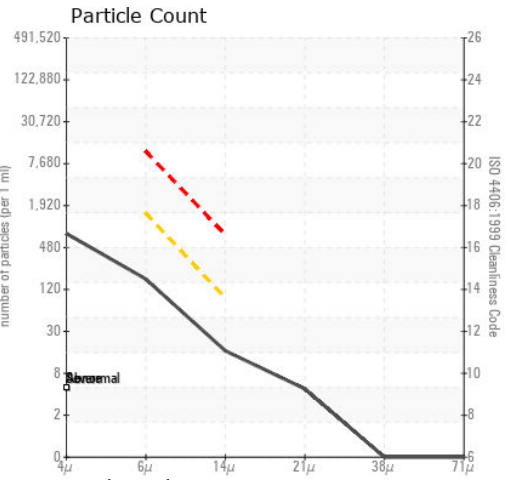
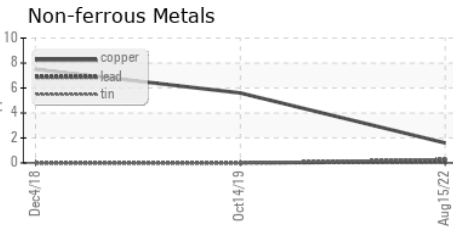
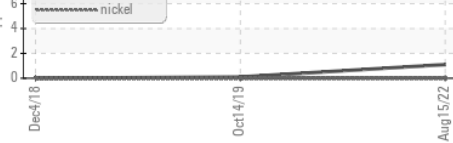
PARAMETER	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	<b>48.4</b>	44.4	44.74

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP48331 **Received** : 12 Sep 2022  
**Lab Number** : 05638595 **Diagnosed** : 14 Sep 2022  
**Unique Number** : 10128125 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**KAESER COMPRESSOR**  
 511 SIGMA DRIVE  
 FREDERICKSBURG, VA  
 USA 22408  
 Contact: Warranty Department  
 warranty.us@kaeser.com  
 T: (540)898-5500  
 F: (540)898-5520

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)