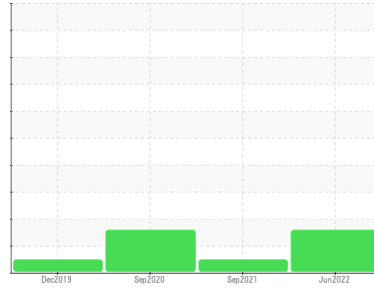




# PROBLEM SUMMARY

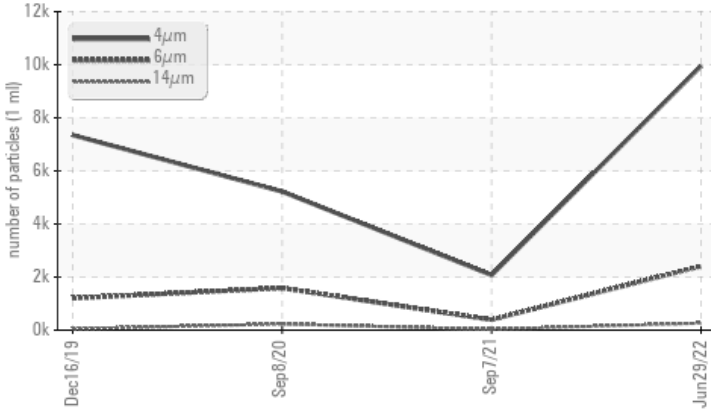
Sample Rating Trend



Machine Id  
**KAESER CS 91 1439651 (S/N 7600311)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	▲ 2409	389	▲ 1586
Particles >14µm	ASTM D7647	>80	▲ 262	31	▲ 232
Particles >21µm	ASTM D7647	>20	▲ 93	4	▲ 84
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 20/18/15	16/12	▲ 18/15

Customer Id: JOSGRE  
 Sample No.: KCP51294  
 Lab Number: 05584150  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 07 Sep 2021 Diag: Don Baldrige

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



### 08 Sep 2020 Diag: Jonathan Hester

ISO



The 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



### 16 Dec 2019 Diag: Jonathan Hester

NORMAL



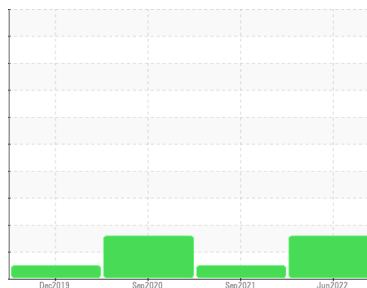
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for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

view report



# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER CS 91 1439651 (S/N 7600311)**

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

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. The 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	history1	history2
Sample Number	Client Info			<b>KCP51294</b>	KCP36302	KCP31077
Sample Date	Client Info			<b>29 Jun 2022</b>	07 Sep 2021	08 Sep 2020
Machine Age	hrs	Client Info		<b>65211</b>	60358	57776
Oil Age	hrs	Client Info		<b>3000</b>	5892	3314
Oil Changed	Client Info			<b>Not Chngd</b>	Changed	Not Chngd
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>1</b>	0	1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>3</b>	6	4
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	2	12
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	90	<b>11</b>	0	4
Calcium	ppm	ASTM D5185m	2	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m		<b>3</b>	29	36
Zinc	ppm	ASTM D5185m		<b>7</b>	0	11
Sulfur	ppm	ASTM D5185m		<b>19405</b>	13832	15627

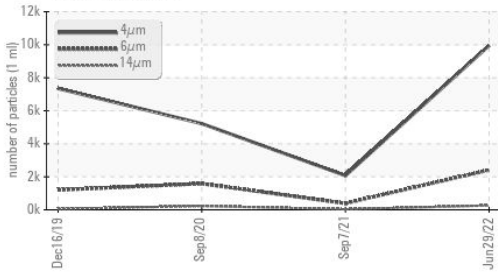
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m		<b>2</b>	0	3
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Water	%	ASTM D6304	>0.05	<b>0.015</b>	0.011	0.010
ppm Water	ppm	ASTM D6304	>500	<b>151.2</b>	111.5	106.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>9952</b>	2073	5222
Particles >6µm		ASTM D7647	>1300	<b>▲ 2409</b>	389	▲ 1586
Particles >14µm		ASTM D7647	>80	<b>▲ 262</b>	31	▲ 232
Particles >21µm		ASTM D7647	>20	<b>▲ 93</b>	4	▲ 84
Particles >38µm		ASTM D7647	>4	<b>4</b>	0	▲ 6
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>▲ 20/18/15</b>	16/12	▲ 18/15

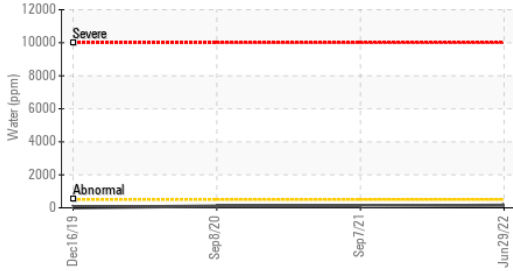
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.40</b>	0.335	0.368

# OIL ANALYSIS REPORT

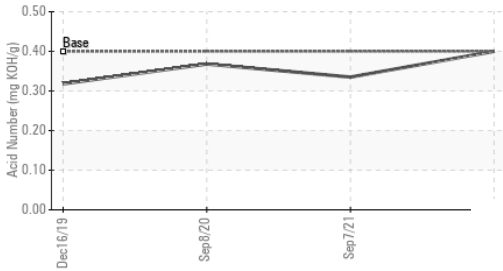
## ▲ Particle Trend



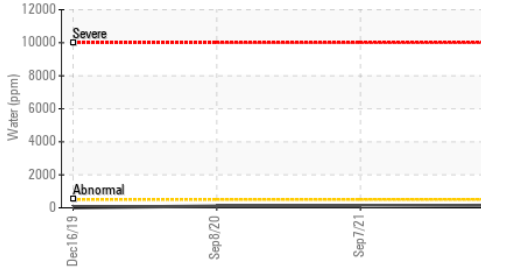
## Water (KF)



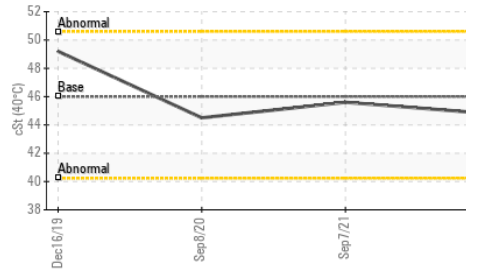
## Acid Number



## Water (KF)



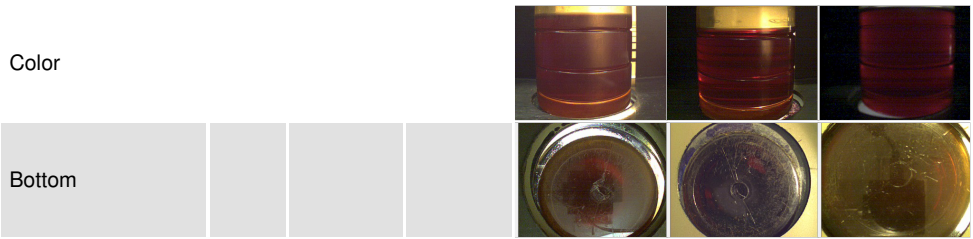
## Viscosity @ 40°C



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

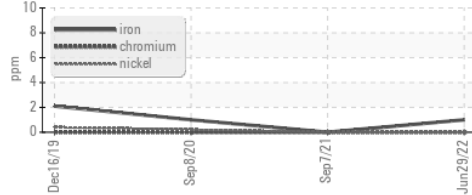
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	44.8	45.6	44.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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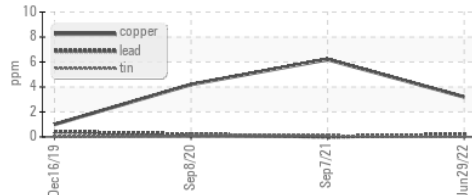


## GRAPHS

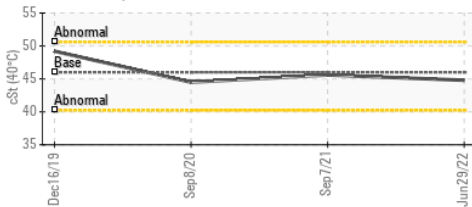
### Ferrous Alloys



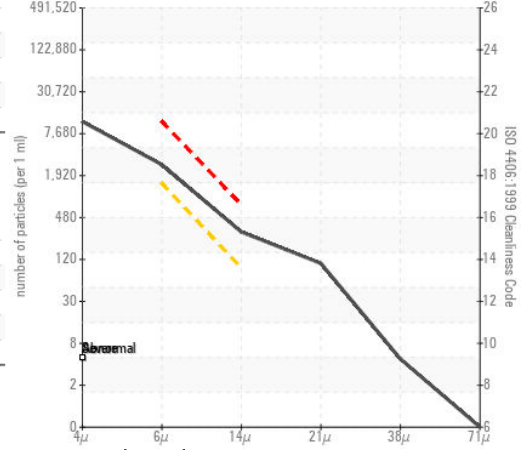
### Non-ferrous Metals



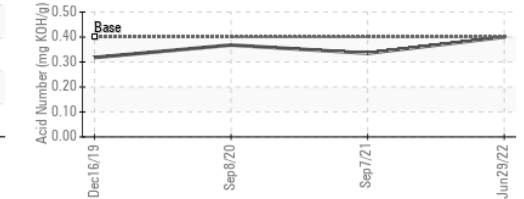
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP51294 **Received** : 05 Jul 2022  
**Lab Number** : 05584150 **Diagnosed** : 07 Jul 2022  
**Unique Number** : 10038576 **Diagnostician** : Don Baldrige

**JUST INTERNATIONAL CORP**  
 5080 W ANDREW JOHNSON HWY  
 GREENVILLE, TN  
 US 37743  
 Contact: R. SEALS  
 rseals@jostinternational.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)

T:  
F: