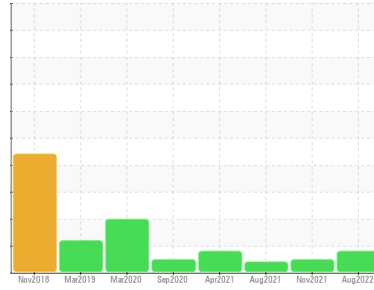


# PROBLEM SUMMARY

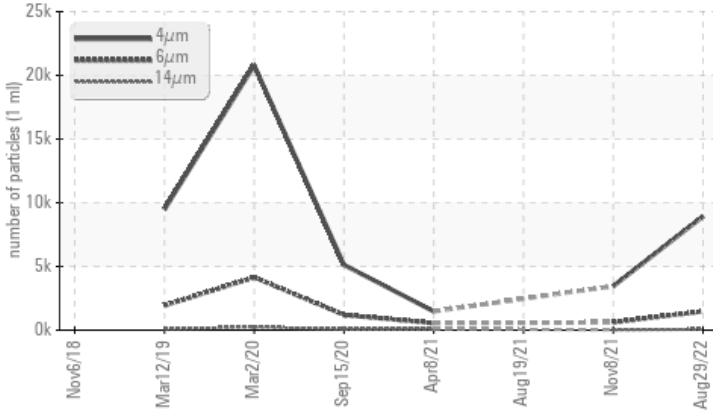
Sample Rating Trend



Machine Id  
**KAESER SK 20 6489941 (S/N 1155)**  
Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

The 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	ABNORMAL
Particles >6µm	ASTM D7647 >1300	▲ 1479	606	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ 20/18/13	16/12	---

Customer Id: MORFAI  
Sample No.: KC104186  
Lab Number: 05636550  
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

### 08 Nov 2021 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 Aug 2021 Diag: Jonathan Hester

#### VIS DEBRIS



We recommend you service the filters on this component. 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



### 08 Apr 2021 Diag: Don Baldrige

#### ISO



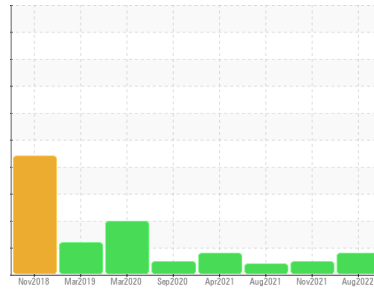
The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id  
**KAESER SK 20 6489941 (S/N 1155)**

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



## DIAGNOSIS

### ▲ Recommendation

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 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>KC104186</b>	KC86174	KC99283
Sample Date			<b>29 Aug 2022</b>	08 Nov 2021	19 Aug 2021
Machine Age	hrs		<b>13234</b>	9824	8768
Oil Age	hrs		<b>2000</b>	2350	1314
Oil Changed			<b>Not Changed</b>	Changed	Not Changed
Sample Status			<b>ATTENTION</b>	NORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	<b>1</b>	3	2
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>0</b>	<1	0
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>	<1	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>2</b>	7	8
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	<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 0	<b>0</b>	<1	6
Barium	ppm	ASTM D5185m 90	<b>13</b>	0	7
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 100	<b>86</b>	59	68
Calcium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m 0	<b>&lt;1</b>	2	0
Zinc	ppm	ASTM D5185m 0	<b>6</b>	9	15

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	<1	5
Sodium	ppm	ASTM D5185m	<b>9</b>	8	9
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Water	%	ASTM D6304 >0.05	<b>0.030</b>	0.017	0.033
ppm Water	ppm	ASTM D6304 >500	<b>305.3</b>	179.0	332.7

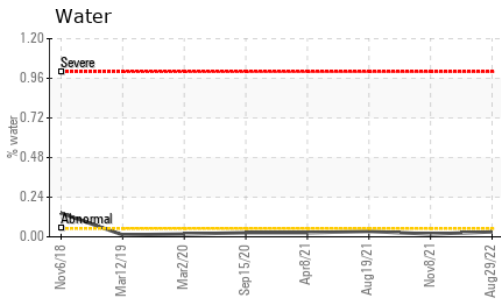
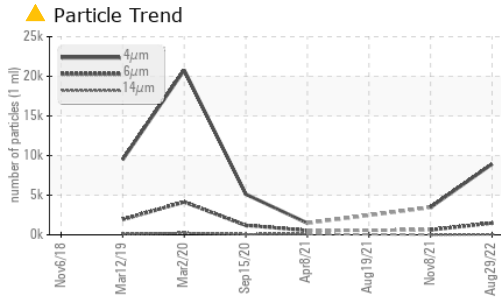
## FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>8936</b>	3457	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 1479</b>	606	---
Particles >14µm	ASTM D7647	>80	<b>66</b>	25	---
Particles >21µm	ASTM D7647	>20	<b>7</b>	5	---
Particles >38µm	ASTM D7647	>4	<b>1</b>	0	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>▲ 20/18/13</b>	16/12	---

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.43</b>	0.434	0.361

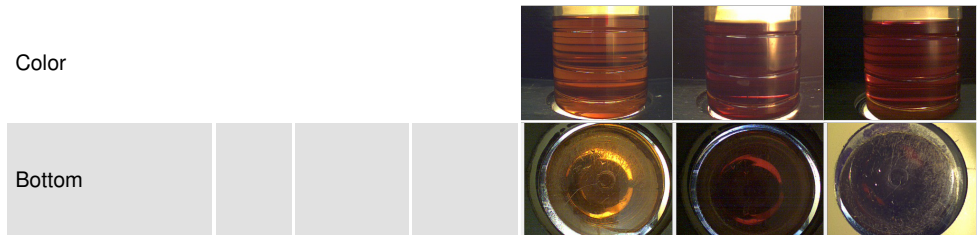
# OIL ANALYSIS REPORT



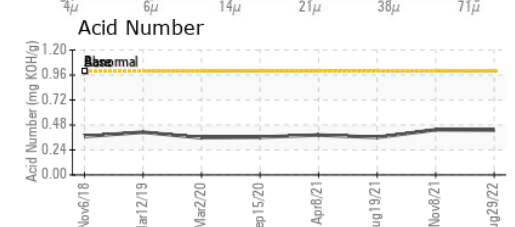
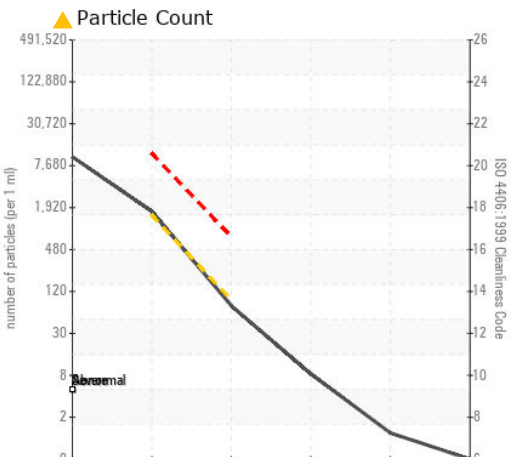
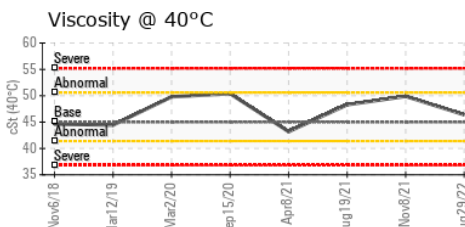
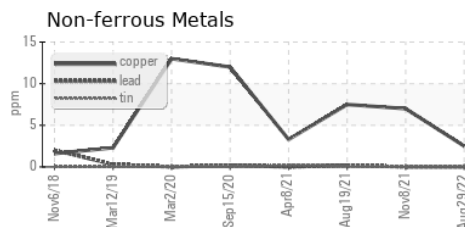
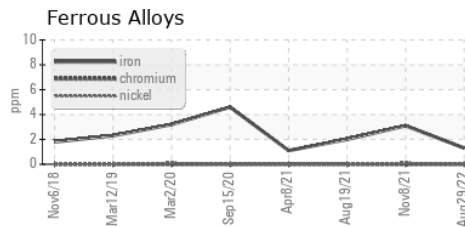
VISUAL	method	limit/base	current	history 1	history 2	
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT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

FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 40°C	cSt	ASTM D445	45	<b>46.4</b>	49.9	48.3

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.** : KC104186  
**Lab Number** : 05636550  
**Unique Number** : 10126080  
**Test Package** : IND 2

**MORGAN ADVANCED CERAMICS**  
 26 MADISON RD.  
 FAIRFIELD, NJ  
 USA  
 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: