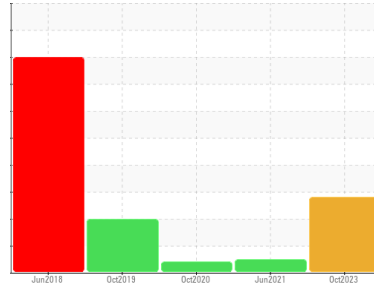




# PROBLEM SUMMARY

Sample Rating Trend



**WATER**



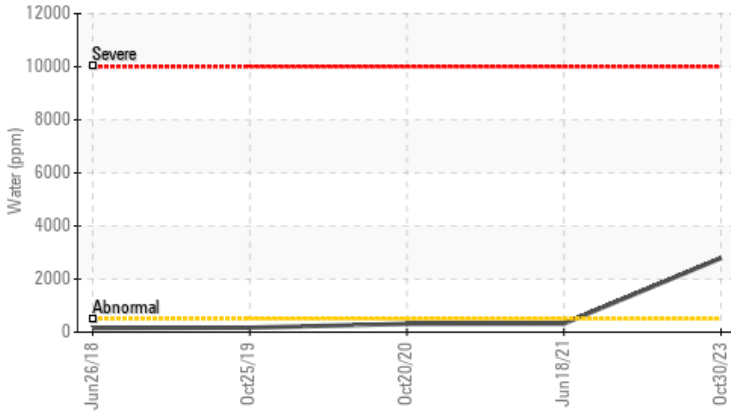
Machine Id  
**KAESER SM 11 1128895 (S/N 1011)**

Component  
**Compressor**

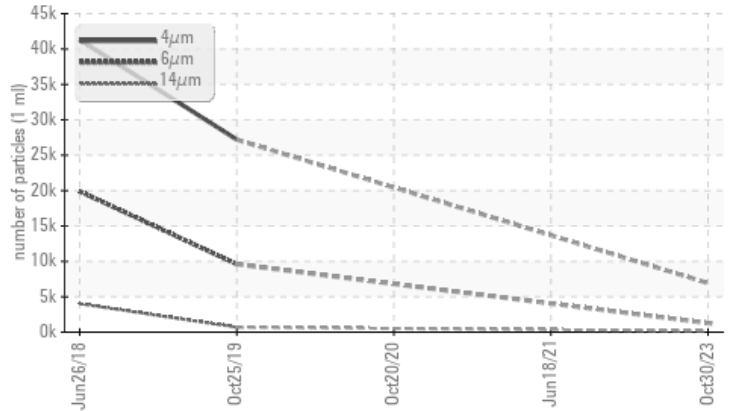
Fluid  
**KAESER SIGMA (OEM) M-460 (--- QTS)**

## COMPONENT CONDITION SUMMARY

▲ Water (KF)



▲ Particle Trend



## RECOMMENDATION

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ <b>0.279</b>	0.032	0.031
ppm Water	ppm	ASTM D6304	>500	▲ <b>2793.3</b>	320.9	313.6
Particles >14µm		ASTM D7647	>80	▲ <b>164</b>	---	---
Particles >21µm		ASTM D7647	>20	▲ <b>56</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ <b>20/17/15</b>	---	---

Customer Id: WOBWOB  
Sample No.: KCPA000856  
Lab Number: 06011524  
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

### 18 Jun 2021 Diag: Angela Borella

#### NORMAL



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. 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



### 20 Oct 2020 Diag: Jonathan Hester

#### 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



### 25 Oct 2019 Diag: Don Baldrige

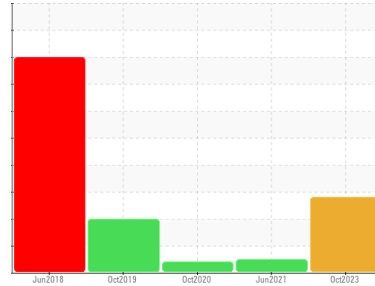
#### ISO



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





Machine Id  
**KAESER SM 11 1128895 (S/N 1011)**

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

## DIAGNOSIS

### ▲ Recommendation

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KCPA000856</b>	KCP42187	KCP31543
Sample Date	Client Info	<b>30 Oct 2023</b>	18 Jun 2021	20 Oct 2020
Machine Age	hrs	<b>44890</b>	40174	39199
Oil Age	hrs	<b>0</b>	975	1673
Oil Changed	Client Info	<b>N/A</b>	Not Changd	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	<b>2</b>	<1	1
Chromium	ppm ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185m >3	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185m >3	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >10	<b>0</b>	0	<1
Lead	ppm ASTM D5185m >10	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >50	<b>11</b>	1	2
Tin	ppm ASTM D5185m >10	<b>&lt;1</b>	0	0
Antimony	ppm ASTM D5185m	<b>---</b>	0	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	<1	2
Barium	ppm ASTM D5185m 90	<b>0</b>	58	28
Molybdenum	ppm ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 100	<b>0</b>	87	69
Calcium	ppm ASTM D5185m 0	<b>0</b>	2	2
Phosphorus	ppm ASTM D5185m 0	<b>0</b>	3	3
Zinc	ppm ASTM D5185m 0	<b>0</b>	0	4
Sulfur	ppm ASTM D5185m 23500	<b>18957</b>	18597	19016

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>1</b>	<1	1
Sodium	ppm ASTM D5185m	<b>2</b>	19	13
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	3	3
Water	% ASTM D6304 >0.05	<b>▲ 0.279</b>	0.032	0.031
ppm Water	ppm ASTM D6304 >500	<b>▲ 2793.3</b>	320.9	313.6

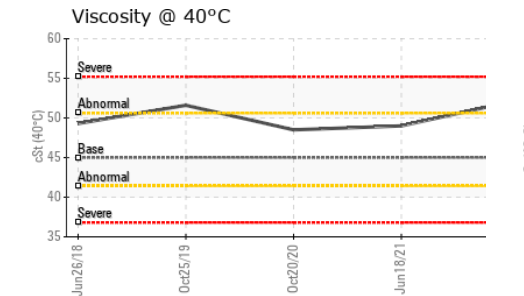
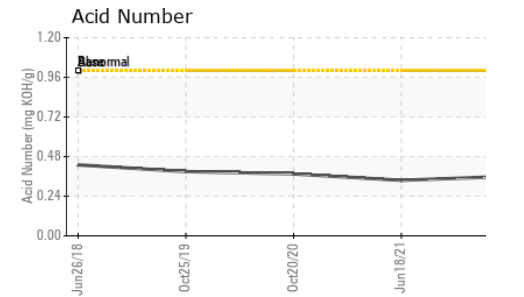
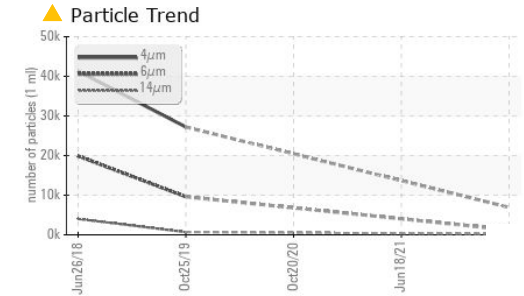
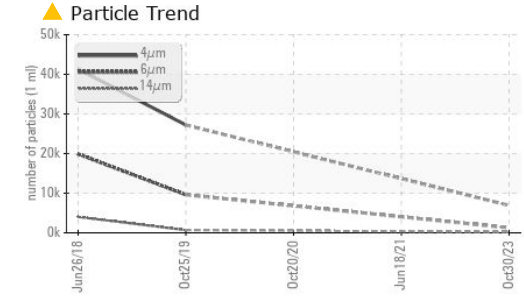
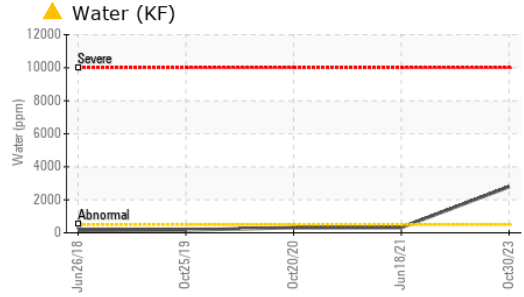
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>6927</b>	---	---
Particles >6µm	ASTM D7647 >1300	<b>1264</b>	---	---
Particles >14µm	ASTM D7647 >80	<b>▲ 164</b>	---	---
Particles >21µm	ASTM D7647 >20	<b>▲ 56</b>	---	---
Particles >38µm	ASTM D7647 >4	<b>3</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>▲ 20/17/15</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 1.0	<b>0.36</b>	0.336	0.375

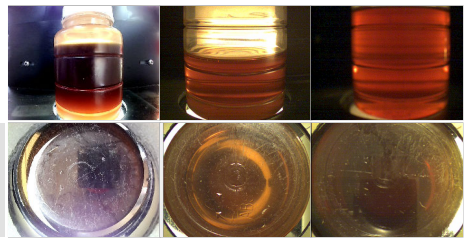
# OIL ANALYSIS REPORT



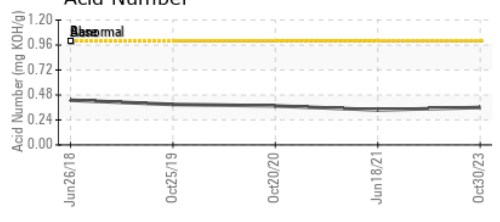
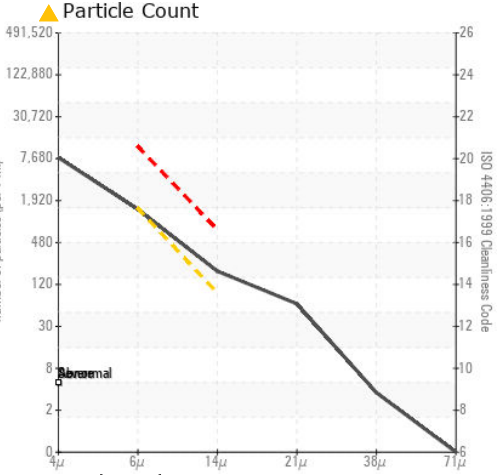
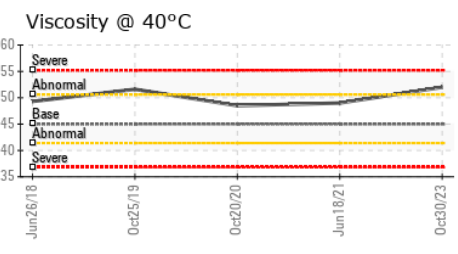
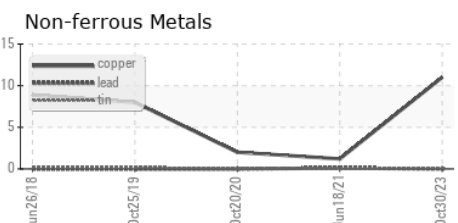
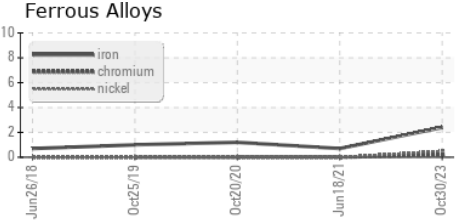
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	52.0	49.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA000856 **Received** : 17 Nov 2023  
**Lab Number** : 06011524 **Diagnosed** : 21 Nov 2023  
**Unique Number** : 10750668 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**WOBURN FOREIGN AUTO BODY**  
 80 OLYMPIA AVE  
 WOBURN, MA  
 US 01801  
 Contact: J COOPER  
 JCOOPER@ALBRECHTAUTO.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)