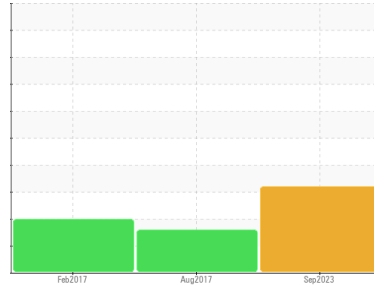




# PROBLEM SUMMARY

Sample Rating Trend



**WATER**

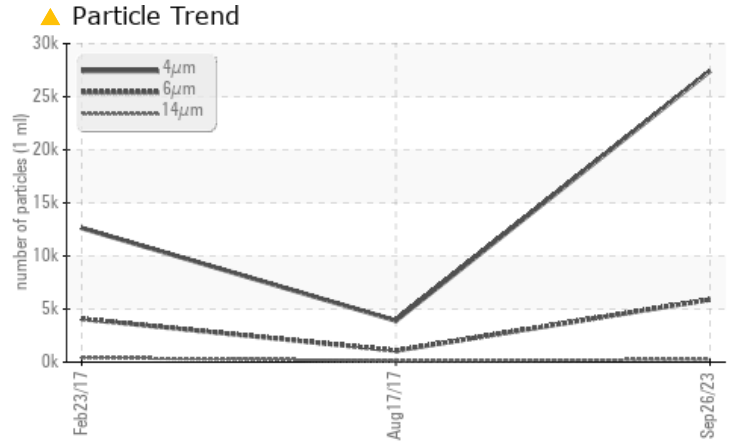
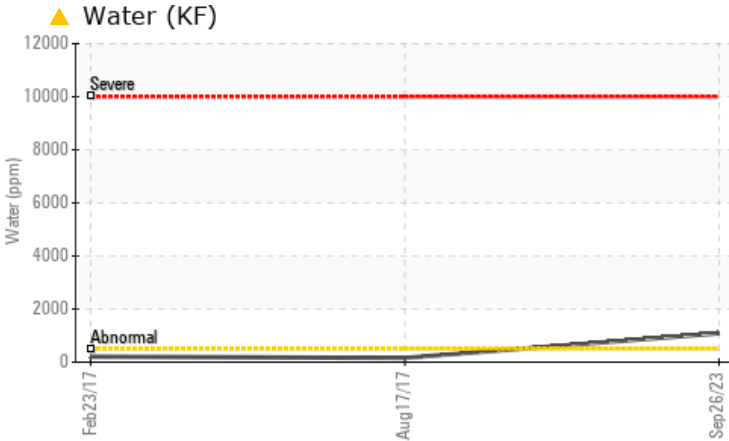


Machine Id  
**KAESER ASD 40S 3225113 (S/N 1009)**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY



## 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				<b>ABNORMAL</b>	ATTENTION	ABNORMAL
Water	%	ASTM D6304	>0.05	<b>▲ 0.108</b>	0.016	0.021
ppm Water	ppm	ASTM D6304	>500	<b>▲ 1088.0</b>	160	210
Particles >6µm		ASTM D7647	>1300	<b>▲ 5892</b>	1080	<b>▲ 4068</b>
Particles >14µm		ASTM D7647	>80	<b>▲ 250</b>	<b>▲ 120</b>	<b>▲ 428</b>
Particles >21µm		ASTM D7647	>20	<b>▲ 66</b>	<b>▲ 38</b>	<b>▲ 104</b>
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>▲ 22/20/15</b>	<b>▲ 17/14</b>	<b>▲ 19/16</b>

Customer Id: VREFRE  
 Sample No.: KCPA003743  
 Lab Number: 05967035  
 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

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 17 Aug 2017 Diag: Don Baldrige

ISO



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 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



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### 23 Feb 2017 Diag: Doug Bogart

ISO



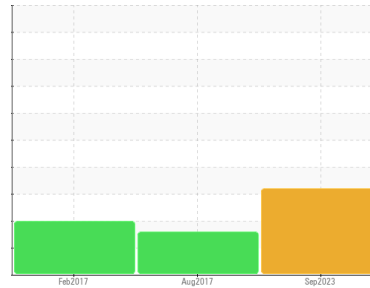
We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



# OIL ANALYSIS REPORT

## Sample Rating Trend



**WATER**



Machine Id  
**KAESER ASD 40S 3225113 (S/N 1009)**

Component  
**Compressor**

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

### 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. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KCPA003743</b>	KCP05802	KCP71352
Sample Date	Client Info	<b>26 Sep 2023</b>	17 Aug 2017	23 Feb 2017
Machine Age	hrs	<b>35223</b>	15996	16686
Oil Age	hrs	<b>0</b>	850	0
Oil Changed	Client Info	<b>N/A</b>	Changed	Not Chngd
Sample Status		<b>ABNORMAL</b>	ATTENTION	ABNORMAL

### WEAR METALS

method	limit/base	current	history1	history2	
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>	<1	0
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>6</b>	6	1
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	5
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	<1

### ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m 90	<b>0</b>	2	17
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>21</b>	27	68
Calcium	ppm	ASTM D5185m 0	<b>0</b>	<1	1
Phosphorus	ppm	ASTM D5185m 0	<b>2</b>	0	55
Zinc	ppm	ASTM D5185m 0	<b>89</b>	33	13
Sulfur	ppm	ASTM D5185m 23500	<b>22905</b>	12333	21100

### CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m	<b>9</b>	8	21
Potassium	ppm	ASTM D5185m >20	<b>3</b>	7	11
Water	%	ASTM D6304 >0.05	<b>▲ 0.108</b>	0.016	0.021
ppm Water	ppm	ASTM D6304 >500	<b>▲ 1088.0</b>	160	210

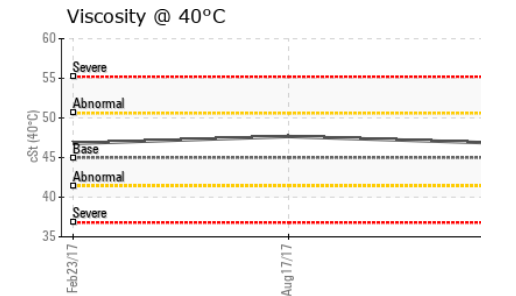
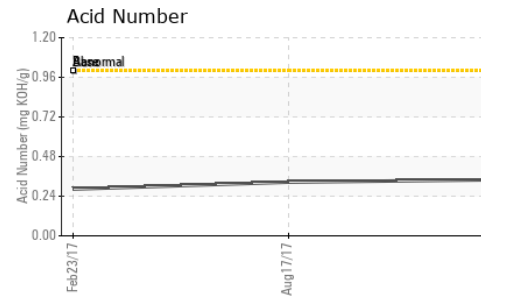
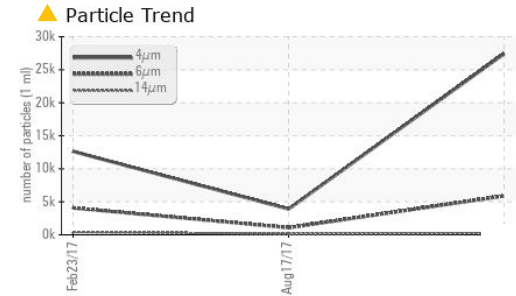
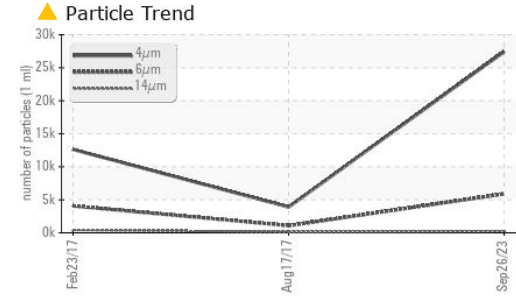
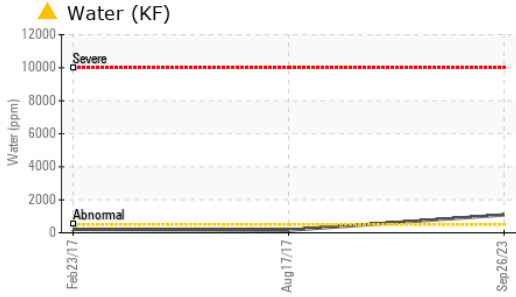
### FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>27419</b>	3904	12628
Particles >6µm	ASTM D7647 >1300	<b>▲ 5892</b>	1080	▲ 4068
Particles >14µm	ASTM D7647 >80	<b>▲ 250</b>	▲ 120	▲ 428
Particles >21µm	ASTM D7647 >20	<b>▲ 66</b>	▲ 38	▲ 104
Particles >38µm	ASTM D7647 >4	<b>3</b>	▲ 7	▲ 8
Particles >71µm	ASTM D7647 >3	<b>1</b>	▲ 6	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>▲ 22/20/15</b>	▲ 17/14	▲ 19/16

### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.34</b>	0.325	0.283

# OIL ANALYSIS REPORT

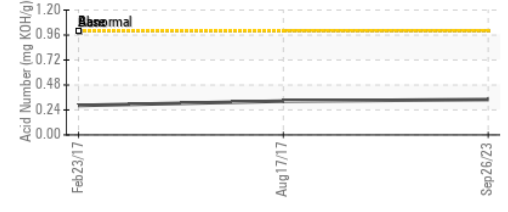
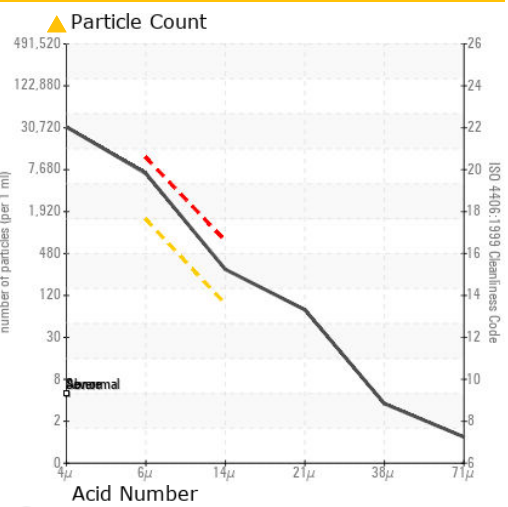
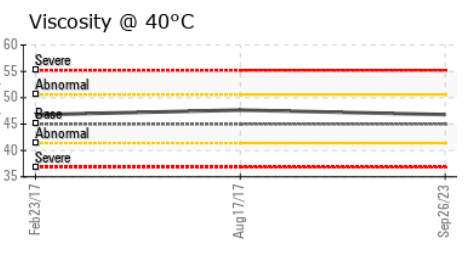
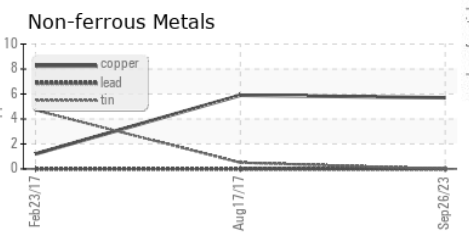
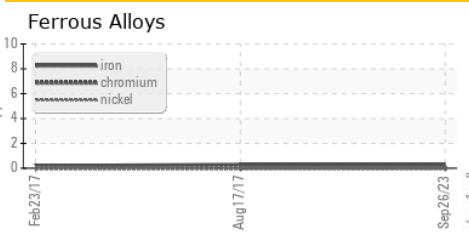


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 45	46.8	47.66	46.78

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA003743 **Received** : 02 Oct 2023  
**Lab Number** : 05967035 **Diagnosed** : 04 Oct 2023  
**Unique Number** : 10673586 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**VRE CROSSROADS YARD**  
 9400 CROSSROADS PKWY  
 FREDERICKSBURG, VA  
 US 22408  
 Contact:

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: