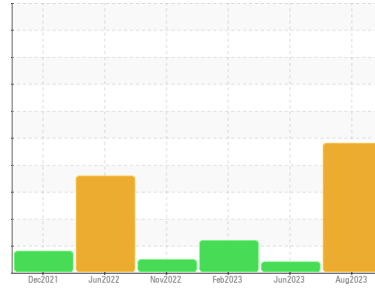


# PROBLEM SUMMARY

## Sample Rating Trend



**WATER**

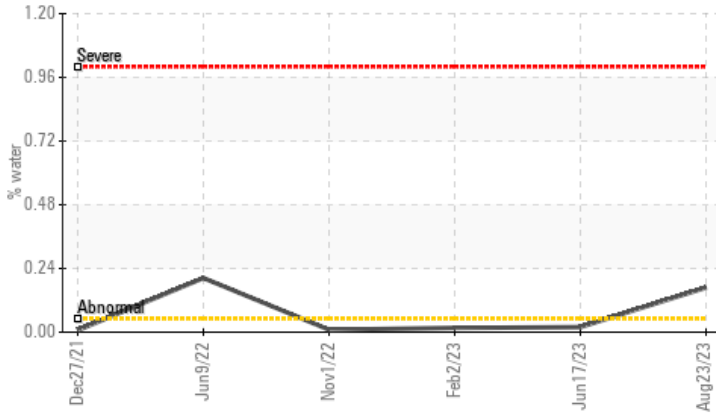


Machine Id  
**KAESER 7366095**

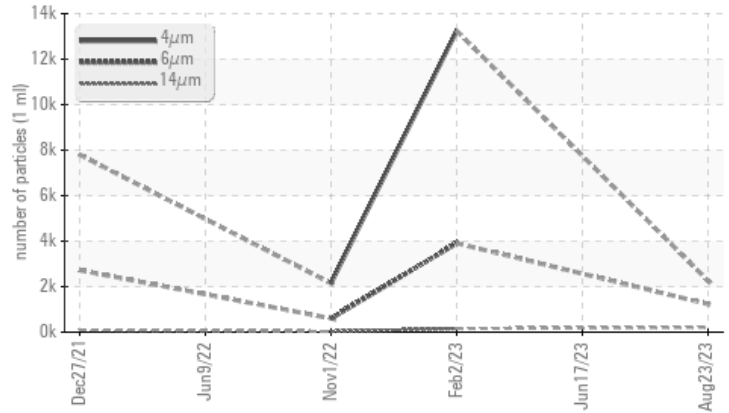
Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### Water



### Particle Trend



## RECOMMENDATION

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>	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	<b>▲ 0.168</b>	0.019	0.016
ppm Water	ppm	ASTM D6304	>500	<b>▲ 1680</b>	199.0	164.5
Particles >14µm		ASTM D7647	>80	<b>▲ 210</b>	---	<b>▲ 155</b>
Particles >21µm		ASTM D7647	>20	<b>▲ 71</b>	---	18
Particles >38µm		ASTM D7647	>4	<b>▲ 11</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>▲ 18/17/15</b>	---	<b>▲ 21/19/14</b>
Free Water	scalar	*Visual		<b>▲ 1.0</b>	NEG	NEG

Customer Id: PIOBIR  
Sample No.: KC112056  
Lab Number: 05937244  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@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 Jun 2023 Diag: Don Baldrige

#### VIS DEBRIS



Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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



### 02 Feb 2023 Diag: Angela Borella

#### 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 high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



### 01 Nov 2022 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.

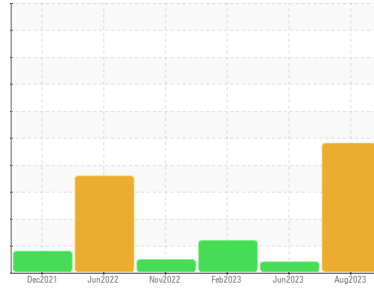
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**KAESER 7366095**

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

## DIAGNOSIS

### Recommendation

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. Free water present. 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>KC112056</b>	KC112058	KC106343
Sample Date	Client Info	<b>23 Aug 2023</b>	17 Jun 2023	02 Feb 2023
Machine Age	hrs	<b>17755</b>	16131	12918
Oil Age	hrs	<b>7059</b>	5435	3918
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>&lt;1</b>	0	0
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>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m >50	<b>11</b>	8	5
Tin	ppm	ASTM D5185m >10	<b>&lt;1</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	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>0</b>	19	35
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>6</b>	26	58
Calcium	ppm	ASTM D5185m 2	<b>0</b>	0	1
Phosphorus	ppm	ASTM D5185m	<b>2</b>	0	33
Zinc	ppm	ASTM D5185m	<b>14</b>	0	8

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	1
Sodium	ppm	ASTM D5185m	<b>2</b>	0	12
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	6
Water	%	ASTM D6304 >0.05	<b>▲ 0.168</b>	0.019	0.016
ppm Water	ppm	ASTM D6304 >500	<b>▲ 1680</b>	199.0	164.5

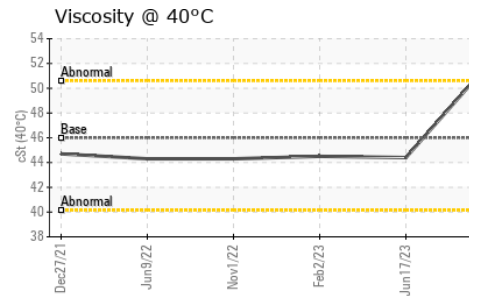
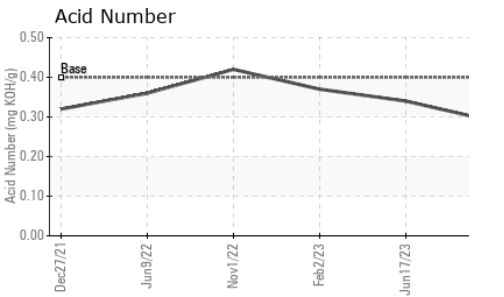
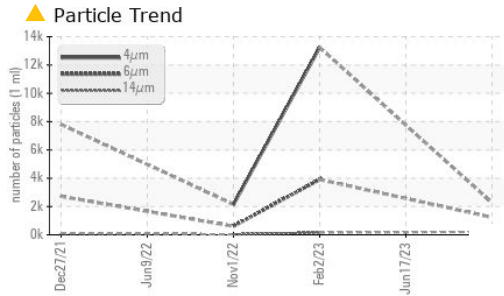
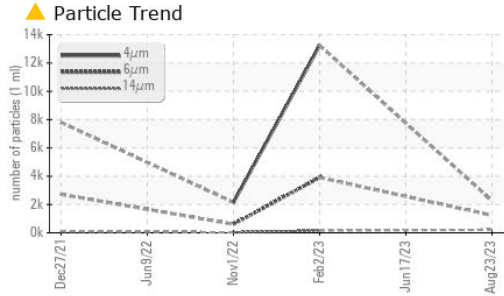
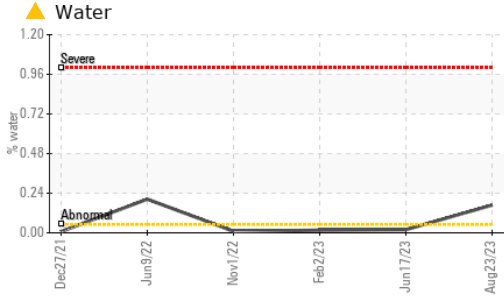
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>2262</b>	---	13241
Particles >6µm	ASTM D7647 >1300	<b>1232</b>	---	▲ 3908
Particles >14µm	ASTM D7647 >80	<b>▲ 210</b>	---	▲ 155
Particles >21µm	ASTM D7647 >20	<b>▲ 71</b>	---	18
Particles >38µm	ASTM D7647 >4	<b>▲ 11</b>	---	0
Particles >71µm	ASTM D7647 >3	<b>1</b>	---	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>▲ 18/17/15</b>	---	▲ 21/19/14

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.29</b>	0.34	0.37

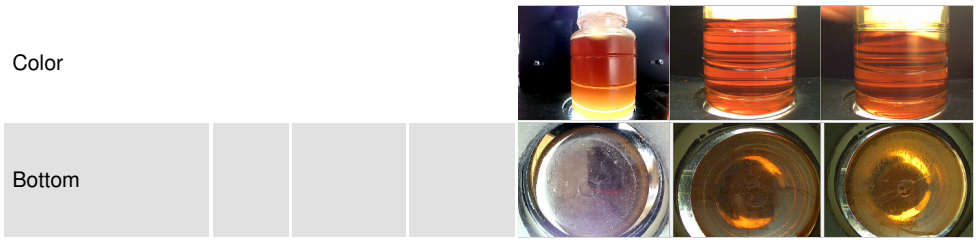
# OIL ANALYSIS REPORT



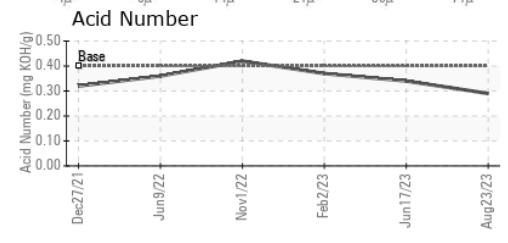
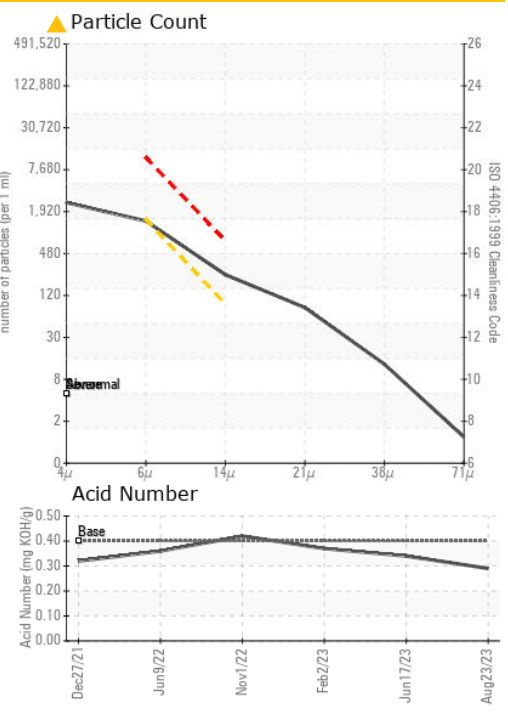
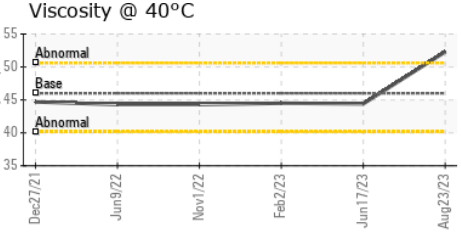
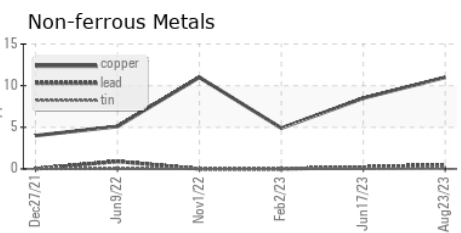
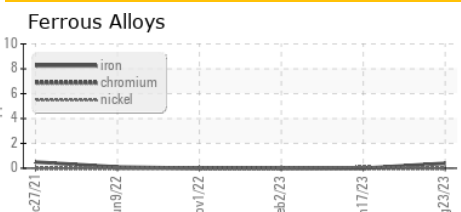
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>0.2%</b>	NEG
Free Water	scalar	*Visual		▲ <b>1.0</b>	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	<b>52.29</b>	44.4	44.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC112056 **Received** : 29 Aug 2023  
**Lab Number** : 05937244 **Diagnosed** : 04 Sep 2023  
**Unique Number** : 10622515 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**PIONEER LANDFILL**  
 727 RED LANE RD  
 BIRDSBORO, PA  
 US 19508  
 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: