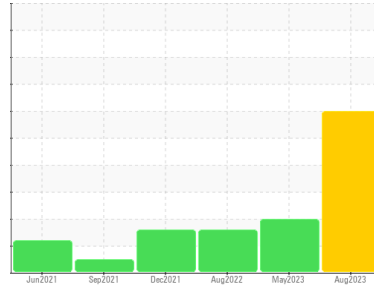


# PROBLEM SUMMARY

Sample Rating Trend



**DIRT**



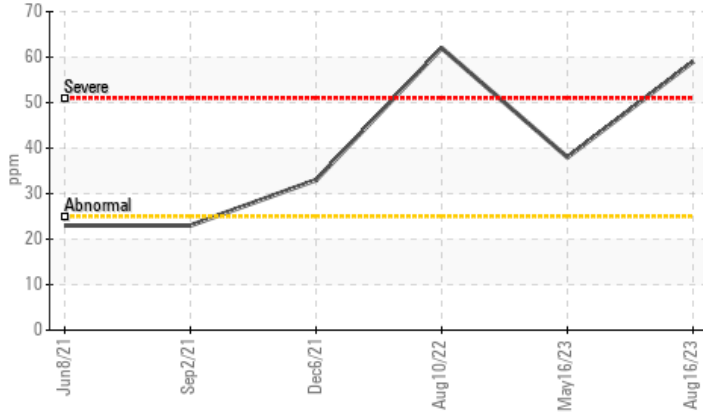
Machine Id  
**KAESER 7239264**

Component  
**Compressor**

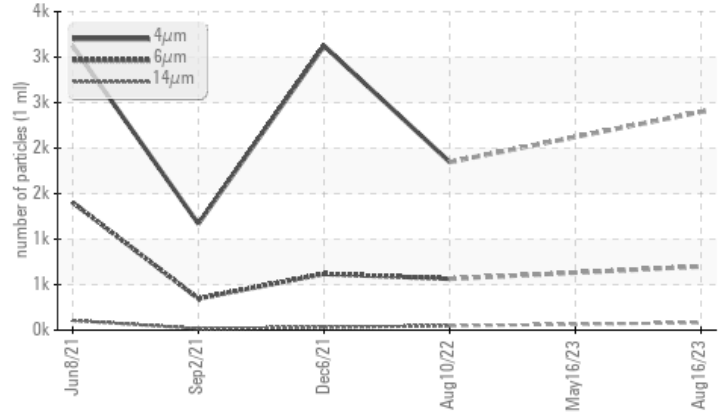
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

**Silicon (ppm)**



**Particle Trend**



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>SEVERE</b>	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185m >25	<b>59</b>	38	62
Particles >14µm		ASTM D7647 >80	<b>82</b>	---	47
Particles >21µm		ASTM D7647 >20	<b>31</b>	---	9
Oil Cleanliness		ISO 4406 (c) >--/17/13	<b>18/17/14</b>	---	18/16/13

Customer Id: TREASH  
Sample No.: KC123200  
Lab Number: 05930381  
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

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

### 16 May 2023 Diag: Jonathan Hester

DIRT



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. Moderate concentration of visible dirt/debris present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 10 Aug 2022 Diag: Angela Borella

DIRT



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. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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](#)



### 06 Dec 2021 Diag: Doug Bogart

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above 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.

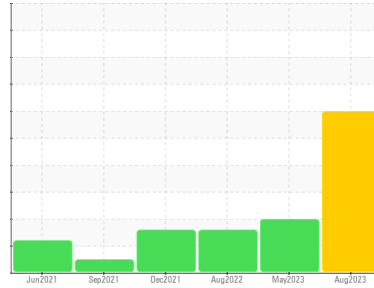
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER 7239264**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

- Recommendation**  
 Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.
- Wear**  
 All component wear rates are normal.
- Contamination**  
 There is a moderate amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.
- 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>KC123200</b>	KC101227	KC102686
Sample Date	Client Info	<b>16 Aug 2023</b>	16 May 2023	10 Aug 2022
Machine Age	hrs	<b>9117</b>	8451	6678
Oil Age	hrs	<b>6521</b>	1775	4404
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Changed
Sample Status		<b>SEVERE</b>	ABNORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >50	<b>0</b>	<1	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>0</b>	0	0
Silver ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum ppm	ASTM D5185m >10	<b>0</b>	0	0
Lead ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper ppm	ASTM D5185m >50	<b>17</b>	5	17
Tin ppm	ASTM D5185m >10	<b>0</b>	0	<1
Antimony ppm	ASTM D5185m	<b>---</b>	---	---
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>	0	<1
Barium ppm	ASTM D5185m 90	<b>0</b>	0	0
Molybdenum ppm	ASTM D5185m	<b>0</b>	0	0
Manganese ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium ppm	ASTM D5185m 90	<b>0</b>	17	0
Calcium ppm	ASTM D5185m 2	<b>0</b>	0	0
Phosphorus ppm	ASTM D5185m	<b>0</b>	1	1
Zinc ppm	ASTM D5185m	<b>2</b>	6	0

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	<b>59</b>	38	62
Sodium ppm	ASTM D5185m	<b>3</b>	4	<1
Potassium ppm	ASTM D5185m >20	<b>&lt;1</b>	1	0
Water %	ASTM D6304 >0.05	<b>0.014</b>	0.010	0.006
ppm Water	ASTM D6304 >500	<b>143.0</b>	107.2	66.3

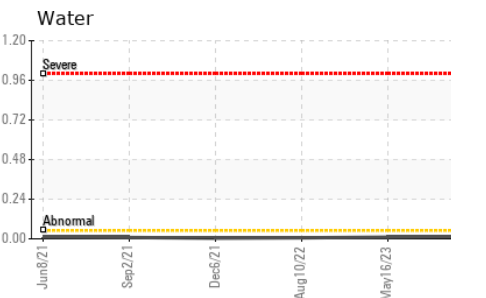
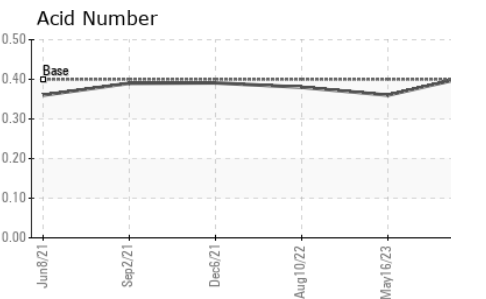
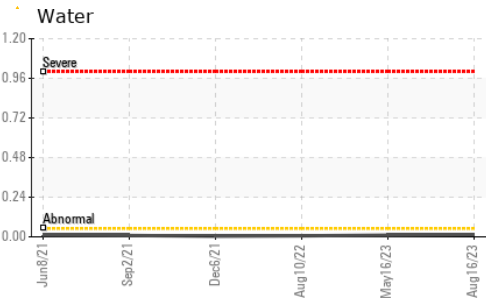
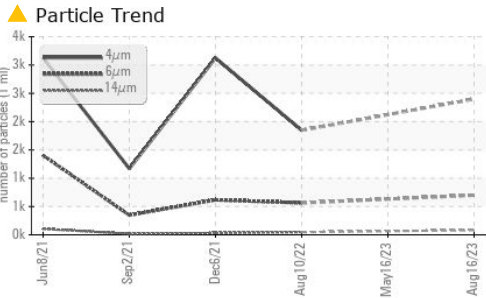
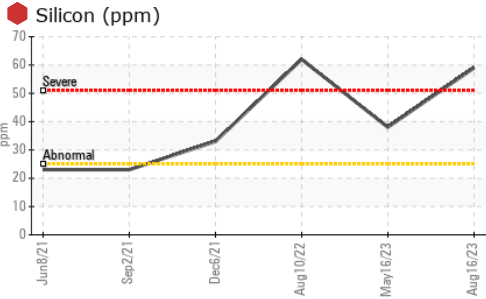
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>2399</b>	---	1847
Particles >6µm	ASTM D7647 >1300	<b>700</b>	---	564
Particles >14µm	ASTM D7647 >80	<b>82</b>	---	47
Particles >21µm	ASTM D7647 >20	<b>31</b>	---	9
Particles >38µm	ASTM D7647 >4	<b>1</b>	---	1
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>18/17/14</b>	---	18/16/13

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045 0.4	<b>0.41</b>	0.36	0.38

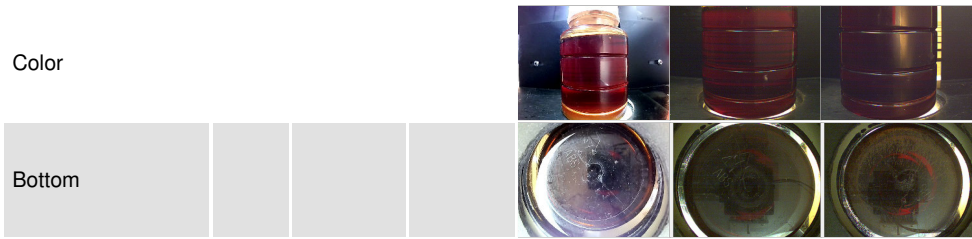
# OIL ANALYSIS REPORT



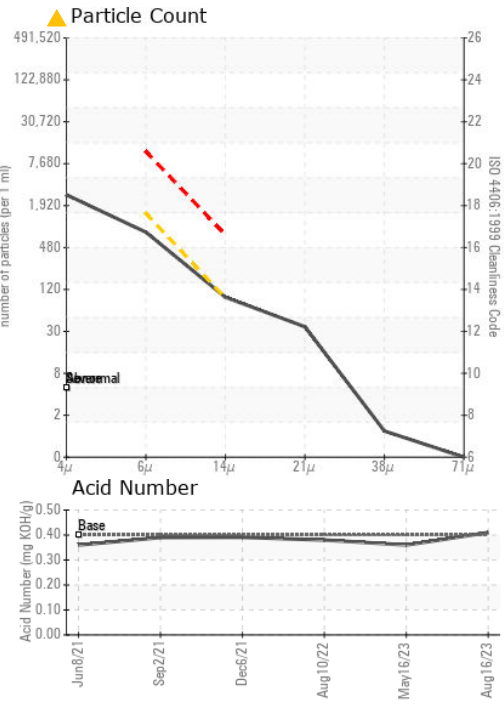
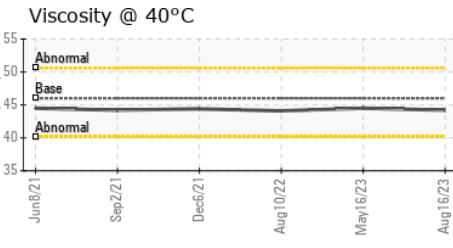
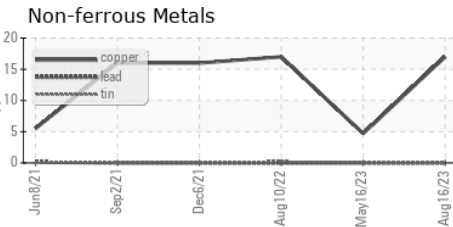
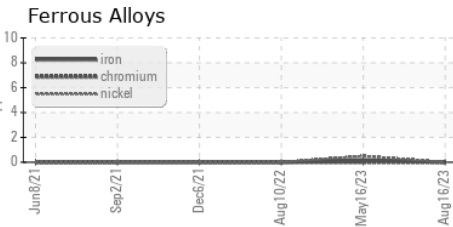
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	46	44.2	44.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC123200 **Received** : 21 Aug 2023  
**Lab Number** : 05930381 **Diagnosed** : 23 Aug 2023  
**Unique Number** : 10615652 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2

**TREMCO**  
 1451 JACOBSON AVE  
 ASHLAND, OH  
 US 44805  
 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: