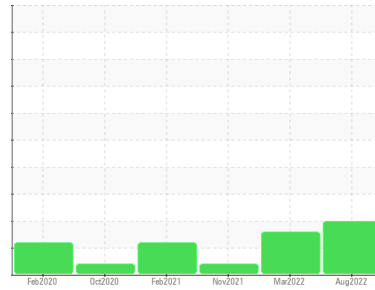


# PROBLEM SUMMARY

## Sample Rating Trend



ISO



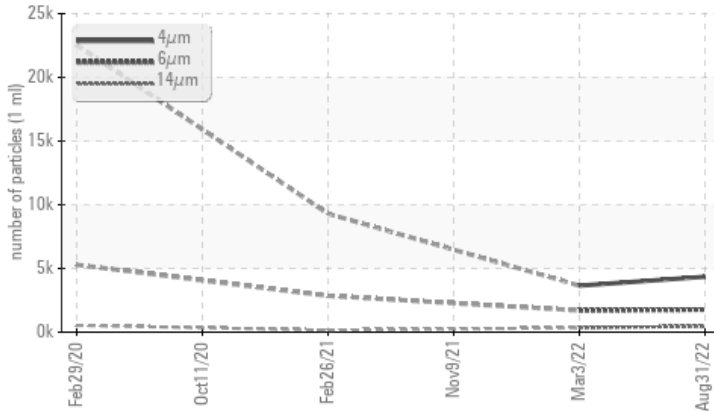
Machine Id  
**KAESER 6848157 (S/N 1017)**

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	ASTM D7647	ASTM D7647	ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	>1300	▲ <b>1765</b>	▲ 1700	---	---
Particles >14µm	>80	▲ <b>458</b>	▲ 340	---	---
Particles >21µm	>20	▲ <b>104</b>	▲ 101	---	---
Particles >38µm	>4	▲ <b>5</b>	4	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ <b>19/18/16</b>	▲ 18/16	---

Customer Id: BRUBLO  
Sample No.: KCP37358  
Lab Number: 05646610  
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

### 03 Mar 2022 Diag: Don Baldrige

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



### 09 Nov 2021 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



### 26 Feb 2021 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 suitable for further service.

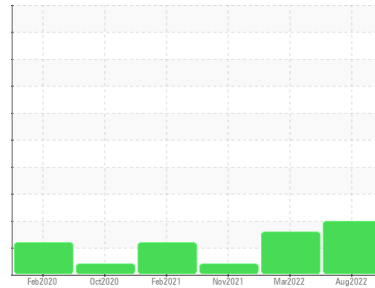
view report



Machine Id  
**KAESER 6848157 (S/N 1017)**

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 high amount of particulates 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>KCP37358</b>	KCP35199	KCP38931
Sample Date			<b>31 Aug 2022</b>	03 Mar 2022	09 Nov 2021
Machine Age	hrs		<b>22087</b>	18943	16869
Oil Age	hrs		<b>3144</b>	6653	4579
Oil Changed			<b>Not Changed</b>	N/A	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m	>50	<b>0</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>	0	<1
Aluminum	ppm ASTM D5185m	>10	<b>1</b>	<1	0
Lead	ppm ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm ASTM D5185m	>50	<b>9</b>	7	10
Tin	ppm ASTM D5185m	>10	<b>0</b>	0	0
Antimony	ppm ASTM D5185m		<b>---</b>	---	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>	0	0
Barium	ppm ASTM D5185m	90	<b>0</b>	0	13
Molybdenum	ppm ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm ASTM D5185m	100	<b>&lt;1</b>	1	14
Calcium	ppm ASTM D5185m	0	<b>0</b>	0	0
Phosphorus	ppm ASTM D5185m	0	<b>2</b>	3	3
Zinc	ppm ASTM D5185m	0	<b>33</b>	21	4
Sulfur	ppm ASTM D5185m	23500	<b>17628</b>	13627	14996

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	<b>&lt;1</b>	<1	0
Sodium	ppm ASTM D5185m		<b>&lt;1</b>	3	1
Potassium	ppm ASTM D5185m	>20	<b>0</b>	0	<1
Water	% ASTM D6304	>0.05	<b>0.015</b>	0.003	0.005
ppm Water	ppm ASTM D6304	>500	<b>154.1</b>	33.9	58.0

## FLUID CLEANLINESS

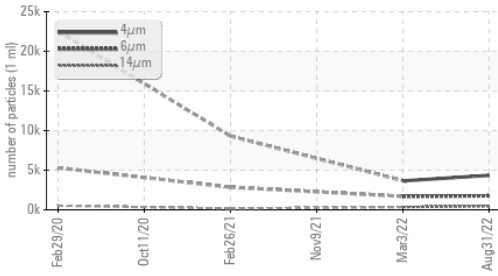
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>4350</b>	▲ 3649	---
Particles >6µm	ASTM D7647	>1300	▲ <b>1765</b>	▲ 1700	---
Particles >14µm	ASTM D7647	>80	▲ <b>458</b>	▲ 340	---
Particles >21µm	ASTM D7647	>20	▲ <b>104</b>	▲ 101	---
Particles >38µm	ASTM D7647	>4	▲ <b>5</b>	4	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ <b>19/18/16</b>	▲ 18/16	---

## FLUID DEGRADATION

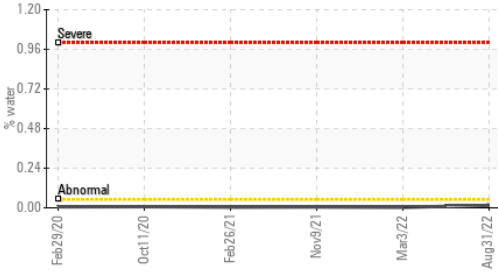
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	1.0	<b>0.41</b>	0.41	0.413

# OIL ANALYSIS REPORT

## ▲ Particle Trend



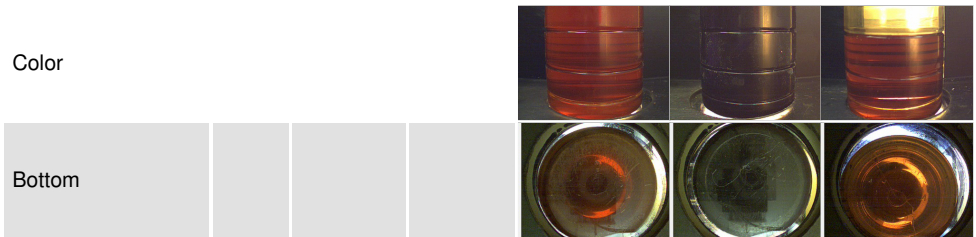
## Water



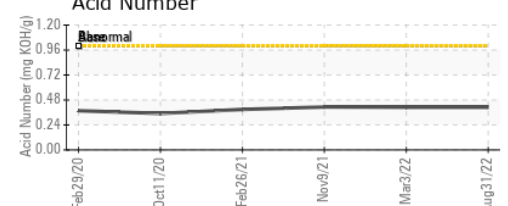
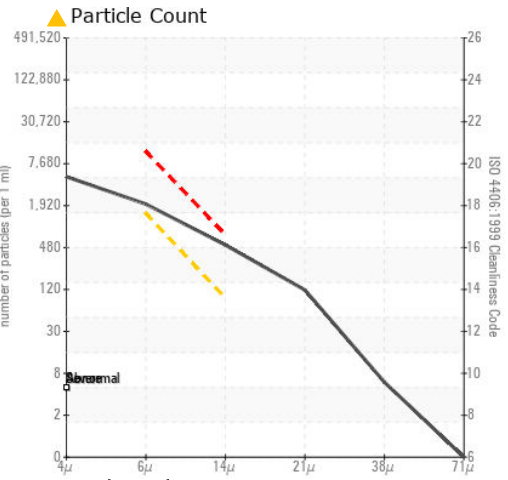
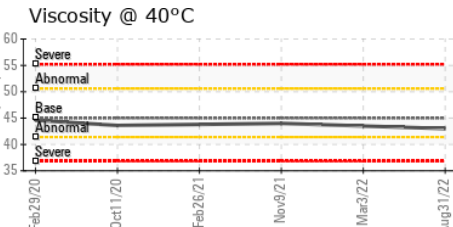
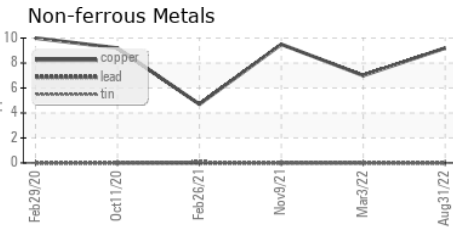
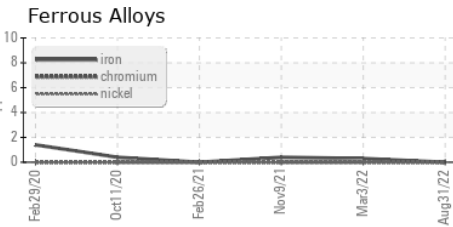
PARAMETER	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	43.0	43.5

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP37358 **Received** : 20 Sep 2022  
**Lab Number** : 05646610 **Diagnosed** : 22 Sep 2022  
**Unique Number** : 10141149 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**BRUNK**  
 201 W 86TH ST  
 BLOOMINGTON, MN  
 USA 55420  
 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: