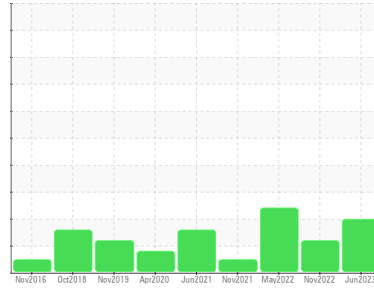




# PROBLEM SUMMARY

Sample Rating Trend



**WEAR**



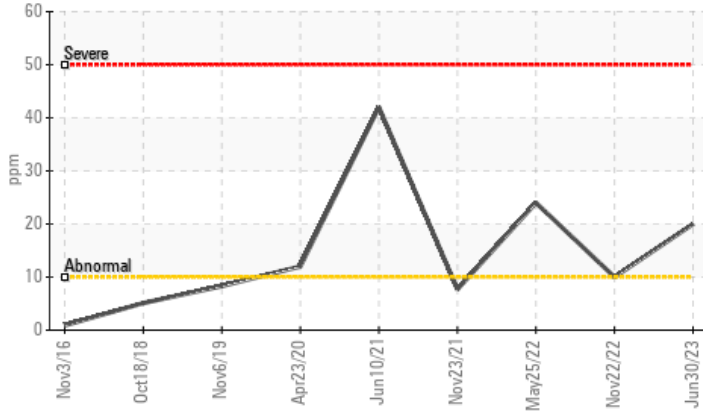
Machine Id  
**KAESER BSD 50 5163375 (S/N 1277)**

Component  
**Compressor**

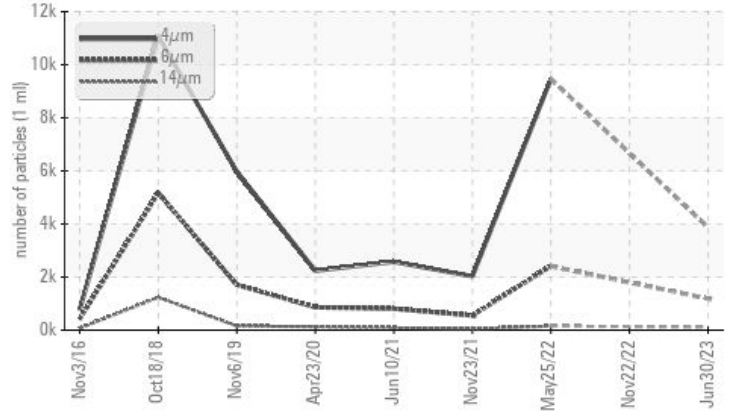
Fluid  
**KAESER SIGMA (OEM) FG-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Aluminum (ppm)



▲ Particle Trend



## RECOMMENDATION

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.

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Aluminum	ppm	ASTM D5185m >10	▲ 20	▲ 10	▲ 24
Particles >14µm		ASTM D7647 >80	▲ 110	---	▲ 151
Particles >21µm		ASTM D7647 >20	▲ 34	---	▲ 22
Oil Cleanliness		ISO 4406 (c) >--/17/13	▲ 19/17/14	---	▲ 20/18/14

Customer Id: WHIELIKC  
Sample No.: KCPA003198  
Lab Number: 05899990  
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

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

### 22 Nov 2022 Diag: Angela Borella

WEAR



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. The aluminum level is abnormal. All other 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 May 2022 Diag: Jonathan Hester

WEAR



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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



### 23 Nov 2021 Diag: Angela Borella

NORMAL



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. 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.

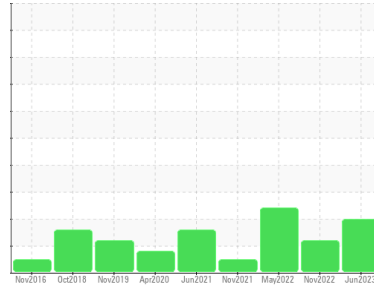
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**KAESER BSD 50 5163375 (S/N 1277)**

Component  
**Compressor**

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

## DIAGNOSIS

### Recommendation

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.

### Wear

The aluminum level is abnormal. All other component wear rates are normal.

### Contamination

There is a moderate 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	history1	history2
Sample Number	Client Info		<b>KCPA003198</b>	KCP52128	KCP51495
Sample Date	Client Info		<b>30 Jun 2023</b>	22 Nov 2022	25 May 2022
Machine Age	hrs	Client Info	<b>43608</b>	39867	37379
Oil Age	hrs	Client Info	<b>0</b>	2488	2552
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>3</b>	0	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>▲ 20</b>	▲ 10	▲ 24
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>&lt;1</b>	<1	<1
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	<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	<b>0</b>	0	2
Calcium	ppm	ASTM D5185m	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m 500	<b>206</b>	188	231
Zinc	ppm	ASTM D5185m	<b>62</b>	92	77
Sulfur	ppm	ASTM D5185m	<b>2214</b>	1918	1659

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	0	0
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304 >0.05	<b>0.002</b>	0.007	0.006
ppm Water	ppm	ASTM D6304 >500	<b>24.4</b>	72.6	64.8

## FLUID CLEANLINESS

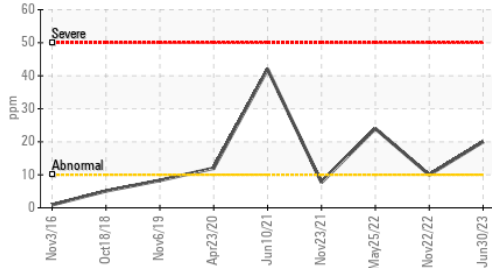
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>3871</b>	---	9463
Particles >6µm	ASTM D7647 >1300		<b>1187</b>	---	▲ 2410
Particles >14µm	ASTM D7647 >80		<b>▲ 110</b>	---	▲ 151
Particles >21µm	ASTM D7647 >20		<b>▲ 34</b>	---	▲ 22
Particles >38µm	ASTM D7647 >4		<b>3</b>	---	1
Particles >71µm	ASTM D7647 >3		<b>0</b>	---	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>▲ 19/17/14</b>	---	▲ 20/18/14

## FLUID DEGRADATION

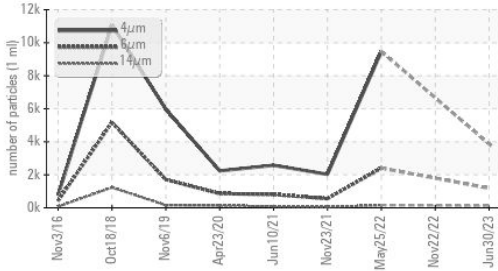
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.5	<b>0.68</b>	0.55	0.82

# OIL ANALYSIS REPORT

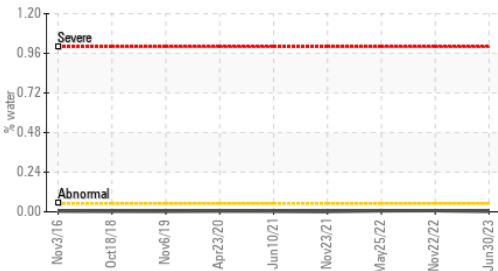
## ▲ Aluminum (ppm)



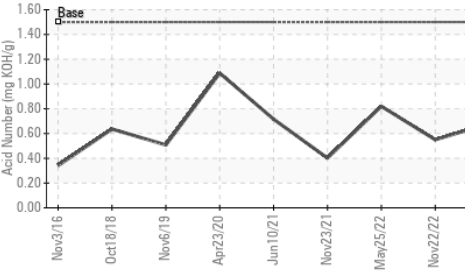
## ▲ Particle Trend



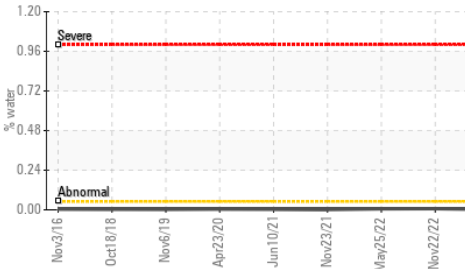
## Water



## Acid Number



## Water

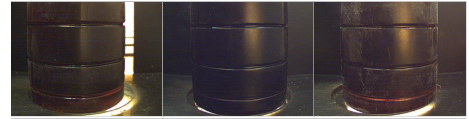


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	47.9	47.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

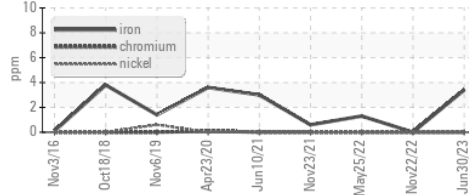


Bottom

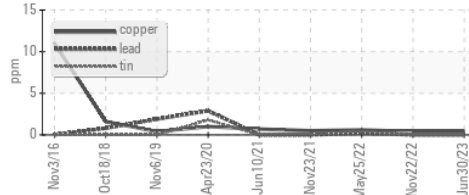


## GRAPHS

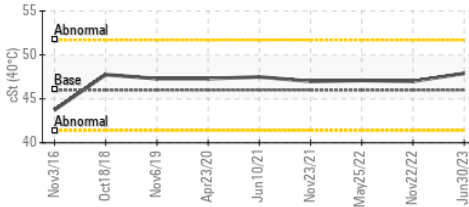
### Ferrous Alloys



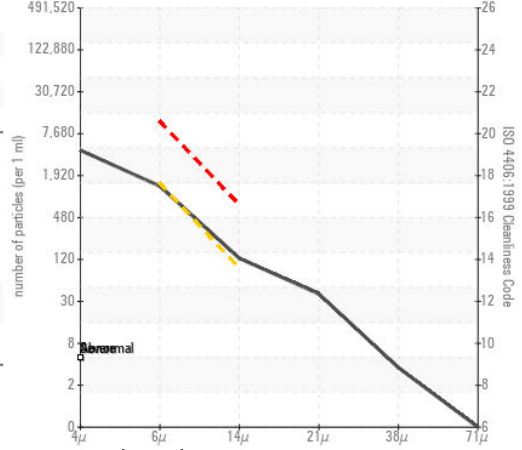
### Non-ferrous Metals



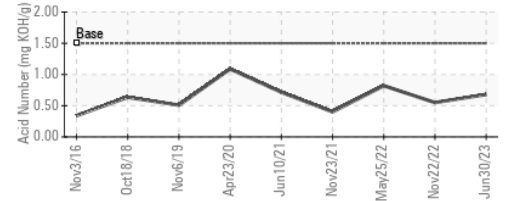
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : KCPA003198 Received : 17 Jul 2023  
 Lab Number : 05899990 Diagnosed : 18 Jul 2023  
 Unique Number : 10561346 Diagnostician : Don Baldrige  
 Test Package : IND 2 ( Additional Tests: KF, PrtCount )

**WHITE OAKS MILLS**  
 419 W HIGH ST  
 ELIZABETHTOWN, PA  
 US 17022  
 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: