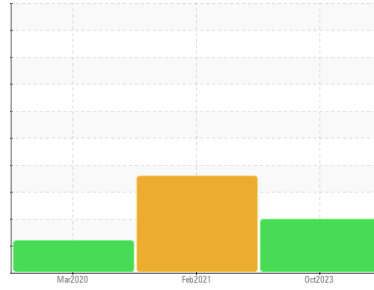




# PROBLEM SUMMARY

Sample Rating Trend



**WATER**

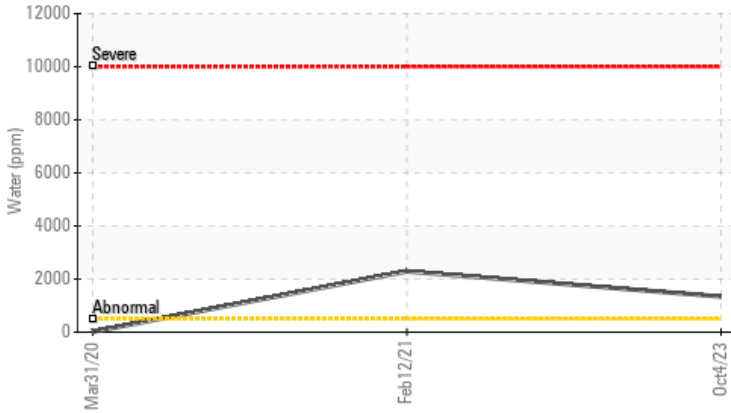


Machine Id  
**4455689 (S/N 1063)**

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

## COMPONENT CONDITION SUMMARY

### ▲ Water (KF)



## RECOMMENDATION

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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>0.134</b>	▲ 0.229	0.001
ppm Water	ppm	ASTM D6304	>500	▲ <b>1340</b>	▲ 2290	12.9
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	▲ MODER	NONE
Emulsified Water	scalar	*Visual	>0.05	▲ <b>0.2%</b>	▲ 0.2%	NEG

Customer Id: GRADET  
Sample No.: KCPA005111  
Lab Number: 06010805  
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
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

## HISTORICAL DIAGNOSIS

### 12 Feb 2021 Diag: Don Baldrige

#### WATER



Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. 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. There is a light concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 31 Mar 2020 Diag: Doug Bogart

#### ISO



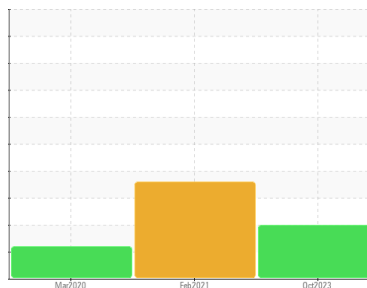
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid.

[view report](#)



# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**4455689 (S/N 1063)**

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

## DIAGNOSIS

### ▲ Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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

Moderate concentration of visible dirt/debris 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KCPA005111</b>	KCP30900	KCP17926
Sample Date	Client Info			<b>04 Oct 2023</b>	12 Feb 2021	31 Mar 2020
Machine Age	hrs	Client Info		<b>31322</b>	23780	21355
Oil Age	hrs	Client Info		<b>0</b>	2425	6896
Oil Changed	Client Info			<b>N/A</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>	<1	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	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	0
Aluminum	ppm	ASTM D5185m	>10	<b>6</b>	4	2
Lead	ppm	ASTM D5185m	>10	<b>0</b>	2	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	5	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

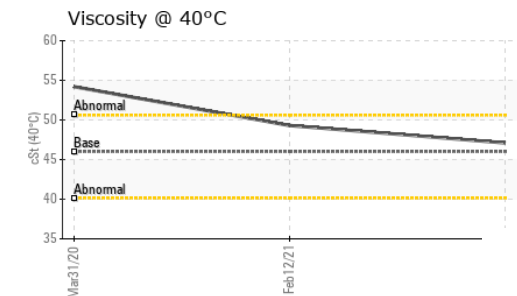
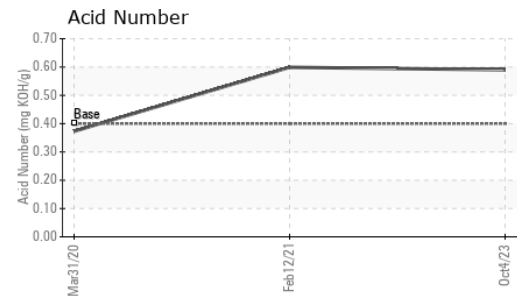
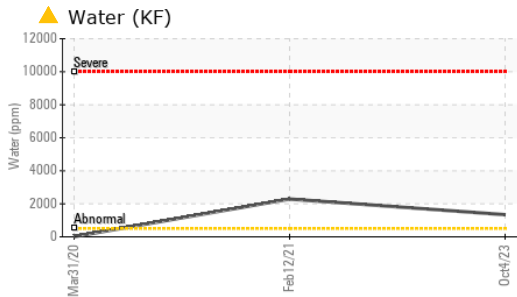
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	90	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m	2	<b>0</b>	<1	<1
Phosphorus	ppm	ASTM D5185m		<b>265</b>	239	145
Zinc	ppm	ASTM D5185m		<b>297</b>	249	124
Sulfur	ppm	ASTM D5185m		<b>1678</b>	1417	1157

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>0</b>	4	7
Sodium	ppm	ASTM D5185m		<b>2</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Water	%	ASTM D6304	>0.05	<b>▲ 0.134</b>	▲ 0.229	0.001
ppm Water	ppm	ASTM D6304	>500	<b>▲ 1340</b>	▲ 2290	12.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>---</b>	---	5956
Particles >6µm		ASTM D7647	>1300	<b>---</b>	---	▲ 2284
Particles >14µm		ASTM D7647	>80	<b>---</b>	---	▲ 382
Particles >21µm		ASTM D7647	>20	<b>---</b>	---	▲ 100
Particles >38µm		ASTM D7647	>4	<b>---</b>	---	3
Particles >71µm		ASTM D7647	>3	<b>---</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>---</b>	---	▲ 18/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.59</b>	0.599	0.373

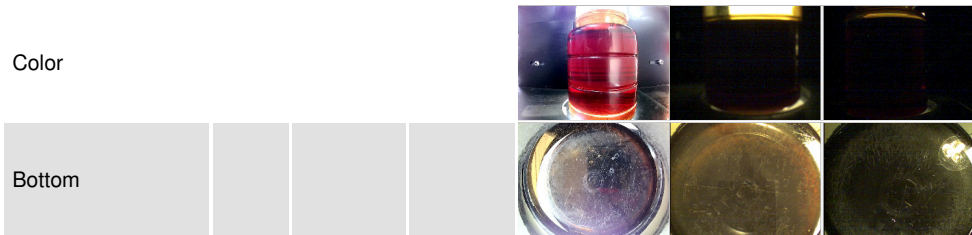
# OIL ANALYSIS REPORT



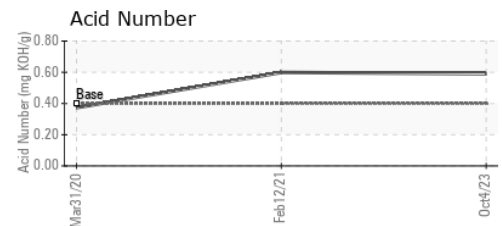
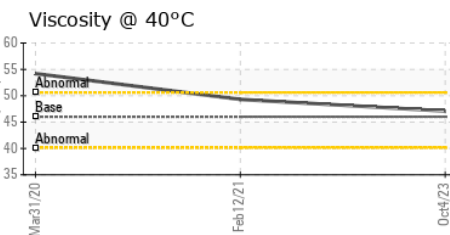
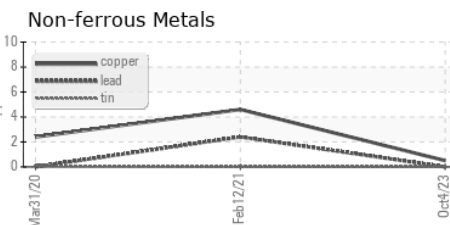
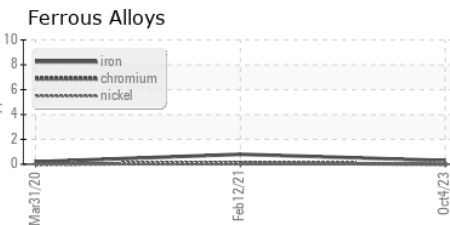
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	47.1	49.3	54.2

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



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA005111 **Received** : 17 Nov 2023  
**Lab Number** : 06010805 **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10749949 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**GRAND PAPA**  
 6500 DAVISON W  
 DETROIT, MI  
 US 48238  
 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: