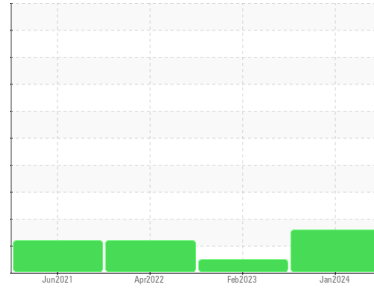




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**5966038 (S/N 1018)**

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

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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 acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KC06133300</b>	KC110976	KC103716
Sample Date	Client Info	<b>10 Jan 2024</b>	09 Feb 2023	18 Apr 2022
Machine Age	hrs	<b>52471</b>	45857	39279
Oil Age	hrs	<b>0</b>	6578	6920
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	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>3</b>	<1	<1
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>15</b>	6	10
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
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>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 90	<b>18</b>	18	18
Calcium	ppm	ASTM D5185m 2	<b>3</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Zinc	ppm	ASTM D5185m	<b>28</b>	0	13

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m	<b>6</b>	15	16
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	4
Water	%	ASTM D6304 >0.05	<b>0.016</b>	0.026	0.015
ppm Water	ppm	ASTM D6304 >500	<b>162</b>	268.4	152.4

## FLUID CLEANLINESS

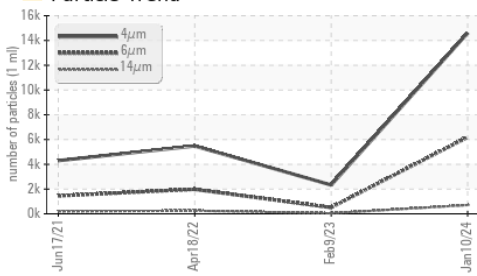
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>14600</b>	2327	5479
Particles >6µm	ASTM D7647 >1300	<b>▲ 6188</b>	508	● 1979
Particles >14µm	ASTM D7647 >80	<b>▲ 705</b>	40	▲ 250
Particles >21µm	ASTM D7647 >20	<b>▲ 159</b>	11	▲ 66
Particles >38µm	ASTM D7647 >4	<b>3</b>	1	3
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>▲ 21/20/17</b>	18/16/12	▲ 18/15

## FLUID DEGRADATION

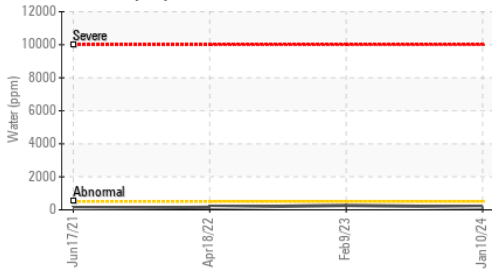
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.34</b>	0.28	0.26

# OIL ANALYSIS REPORT

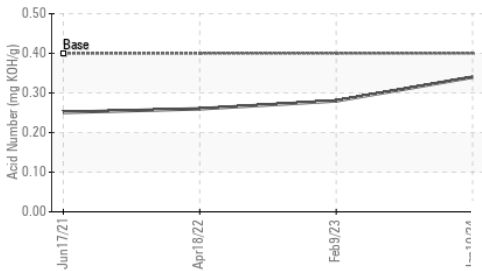
## ▲ Particle Trend



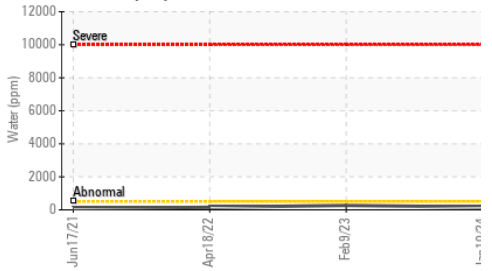
## Water (KF)



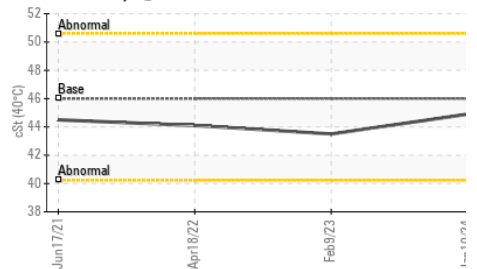
## Acid Number



## Water (KF)



## Viscosity @ 40°C

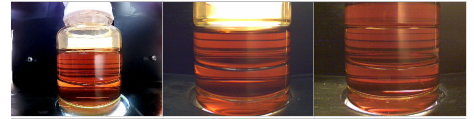


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

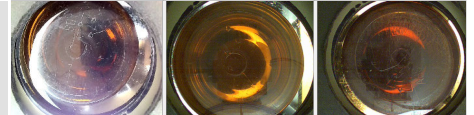
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.9	43.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

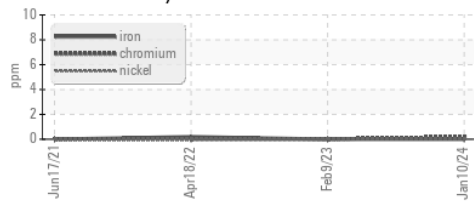


Bottom

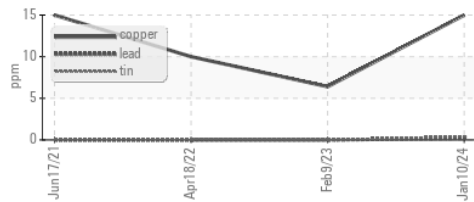


## GRAPHS

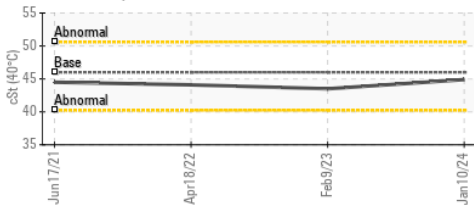
### Ferrous Alloys



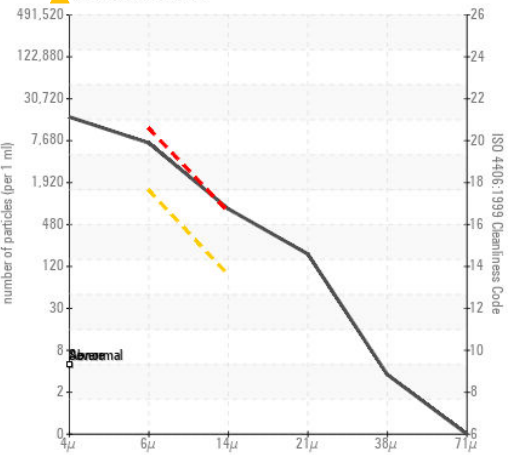
### Non-ferrous Metals



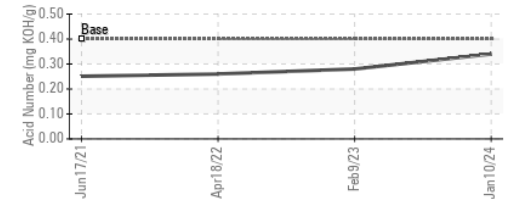
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KC06133300

Lab Number : 06133300

Unique Number : 10952765

Test Package : IND 2

Received : 29 Mar 2024

Tested : 01 Apr 2024

Diagnosed : 01 Apr 2024 - Doug Bogart

WARREN INC

707 N FIR AVE

COLLINS, MS

US 39428

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: