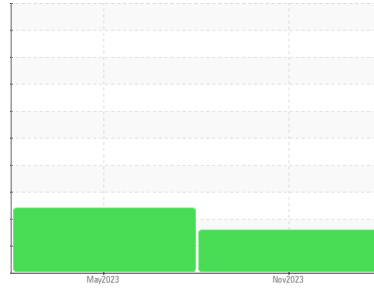




# PROBLEM SUMMARY

Sample Rating Trend



ISO

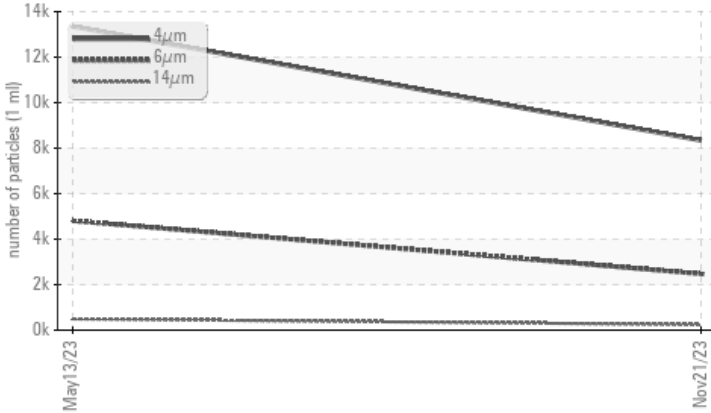


Machine Id  
**4555226 (S/N 1370)**

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

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## 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.

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	---
Particles >6µm	ASTM D7647	>1300	▲ 2474	▲ 4805	---
Particles >14µm	ASTM D7647	>80	▲ 238	▲ 494	---
Particles >21µm	ASTM D7647	>20	▲ 63	▲ 118	---
Oil Cleanliness	ISO 4406 (c)	>17/13	▲ 18/15	▲ 19/16	---

Customer Id: VEOBOU  
Sample No.: KCPA007106  
Lab Number: 06026435  
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

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

**13 May 2023 Diag: Don Baldrige**

### VISCOSITY



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 oil viscosity is higher than normal. The AN level is acceptable for this fluid.

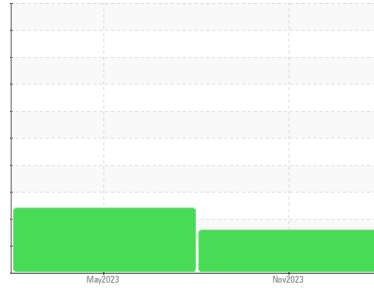
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**4555226 (S/N 1370)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-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 suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KCPA007106</b>	KCP53732	---
Sample Date	Client Info	<b>21 Nov 2023</b>	13 May 2023	---
Machine Age	hrs	<b>80851</b>	76247	---
Oil Age	hrs	<b>0</b>	3000	---
Oil Changed	Client Info	<b>N/A</b>	Changed	---
Sample Status		<b>ABNORMAL</b>	ABNORMAL	---

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>0</b>	0	---
Chromium	ppm	ASTM D5185m >10	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m >3	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m >3	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >50	<b>3</b>	7	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	---
Barium	ppm	ASTM D5185m 90	<b>32</b>	0	---
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m 100	<b>41</b>	8	---
Calcium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	---
Phosphorus	ppm	ASTM D5185m 0	<b>2</b>	0	---
Zinc	ppm	ASTM D5185m 0	<b>0</b>	2	---
Sulfur	ppm	ASTM D5185m 23500	<b>18203</b>	23032	---

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>4</b>	5	---
Sodium	ppm	ASTM D5185m	<b>22</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>1</b>	<1	---
Water	%	ASTM D6304 >0.05	<b>0.016</b>	0.004	---
ppm Water	ppm	ASTM D6304 >500	<b>169</b>	44.5	---

## FLUID CLEANLINESS

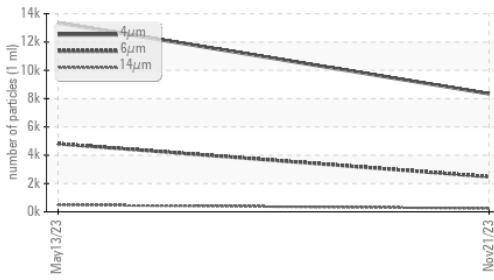
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>8341</b>	13348	---
Particles >6µm	ASTM D7647 >1300	<b>▲ 2474</b>	▲ 4805	---
Particles >14µm	ASTM D7647 >80	<b>▲ 238</b>	▲ 494	---
Particles >21µm	ASTM D7647 >20	<b>▲ 63</b>	▲ 118	---
Particles >38µm	ASTM D7647 >4	<b>2</b>	▲ 9	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c) >17/13	<b>▲ 18/15</b>	▲ 19/16	---

## FLUID DEGRADATION

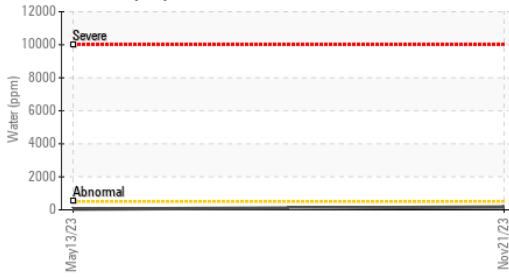
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.36</b>	0.40	---

# OIL ANALYSIS REPORT

## ▲ Particle Trend



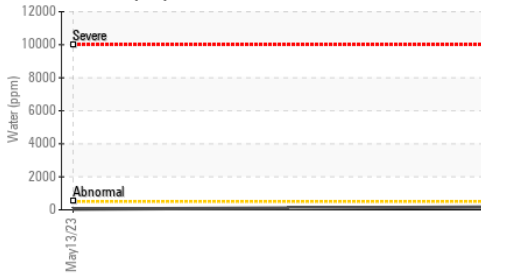
## Water (KF)



## Acid Number



## Water (KF)



## Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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

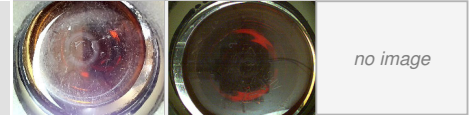
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	51.6	▲ 55.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color

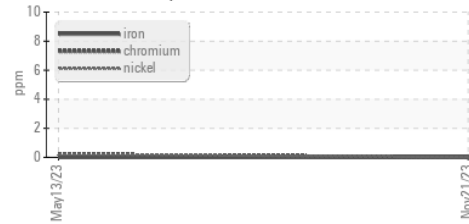


Bottom

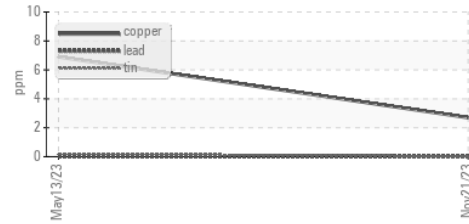


## GRAPHS

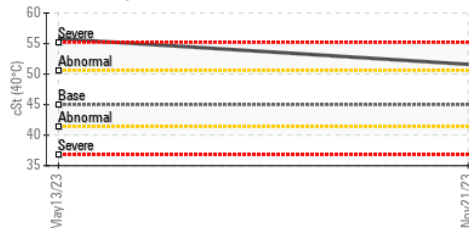
### Ferrous Alloys



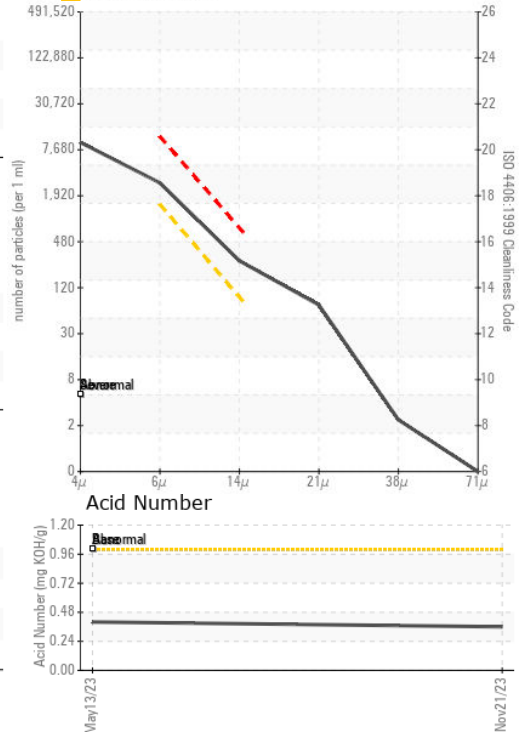
### Non-ferrous Metals



### Viscosity @ 40°C



### ▲ Particle Count



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA007106 **Received** : 06 Dec 2023  
**Lab Number** : 06026435 **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10776226 **Diagnostician** : Don Baldrige

**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

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)

**VEOLIA WATER**  
 6060 SPINE RD  
 BOULDER, CO  
 US 80216  
 Contact: Service Manager

T:  
F: