



# PROBLEM SUMMARY

Sample Rating Trend



ISO



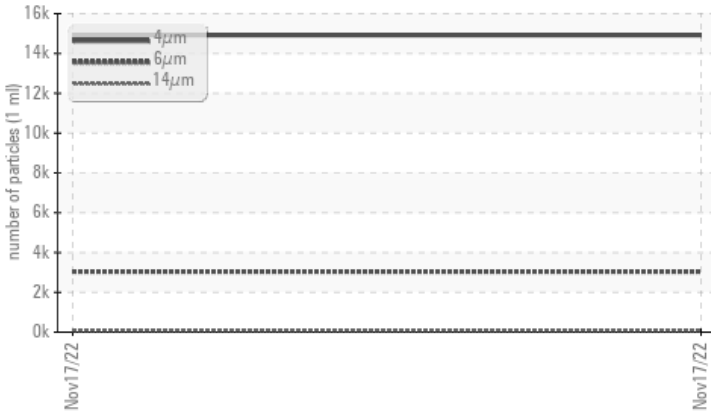
Machine Id  
**KAESER 6412159**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	---	---
Particles >6µm	ASTM D7647	>1300	▲ <b>3039</b>	---	---
Particles >14µm	ASTM D7647	>80	▲ <b>90</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ <b>21/19/14</b>	---	---

Customer Id: UPSLAT  
Sample No.: KCP47972D  
Lab Number: 05699792  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Angela Borella +1 800-237-1369  
[angela.borella@wearcheckusa.com](mailto:angela.borella@wearcheckusa.com)

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



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER 6412159**

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

## DIAGNOSIS

### ▲ Recommendation

Oil and 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>KCP47972D</b>	---	---
Sample Date	Client Info	<b>17 Nov 2022</b>	---	---
Machine Age	hrs	Client Info	<b>29460</b>	---
Oil Age	hrs	Client Info	<b>6000</b>	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>2</b>	---
Chromium	ppm	ASTM D5185m >10	<b>0</b>	---
Nickel	ppm	ASTM D5185m >3	<b>0</b>	---
Titanium	ppm	ASTM D5185m >3	<b>0</b>	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	---
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	---
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	---
Copper	ppm	ASTM D5185m >50	<b>11</b>	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	---
Barium	ppm	ASTM D5185m 90	<b>38</b>	---
Molybdenum	ppm	ASTM D5185m 0	<b>&lt;1</b>	---
Manganese	ppm	ASTM D5185m	<b>0</b>	---
Magnesium	ppm	ASTM D5185m 100	<b>47</b>	---
Calcium	ppm	ASTM D5185m 0	<b>0</b>	---
Phosphorus	ppm	ASTM D5185m 0	<b>9</b>	---
Zinc	ppm	ASTM D5185m 0	<b>&lt;1</b>	---
Sulfur	ppm	ASTM D5185m 23500	<b>22363</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	---
Sodium	ppm	ASTM D5185m	<b>1</b>	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	---
Water	%	ASTM D6304 >0.05	<b>0.017</b>	---
ppm Water	ppm	ASTM D6304 >500	<b>173.4</b>	---

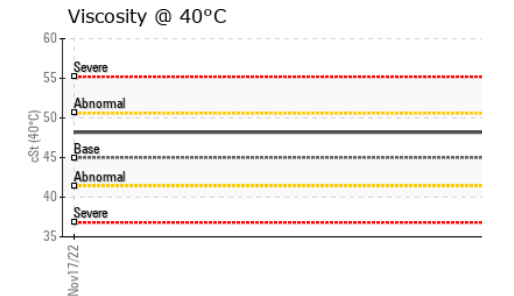
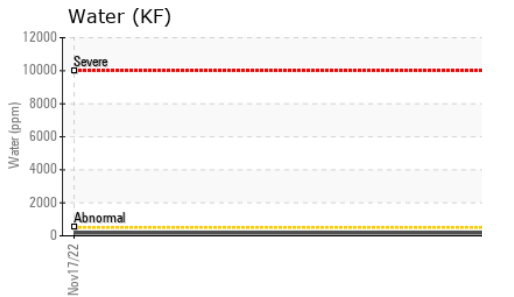
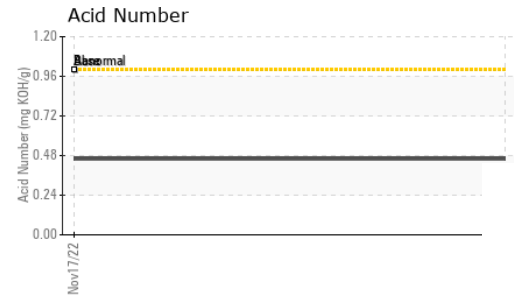
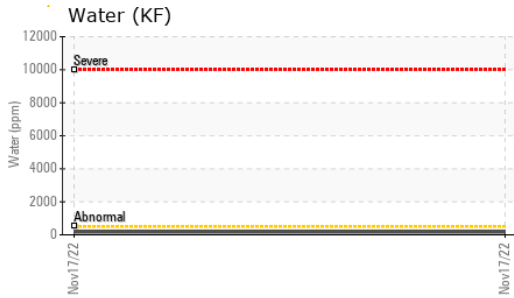
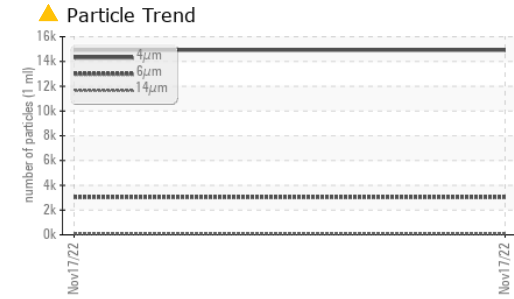
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>14919</b>	---	---
Particles >6µm	ASTM D7647 >1300	▲ <b>3039</b>	---	---
Particles >14µm	ASTM D7647 >80	▲ <b>90</b>	---	---
Particles >21µm	ASTM D7647 >20	<b>16</b>	---	---
Particles >38µm	ASTM D7647 >4	<b>1</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ <b>21/19/14</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.46</b>	---

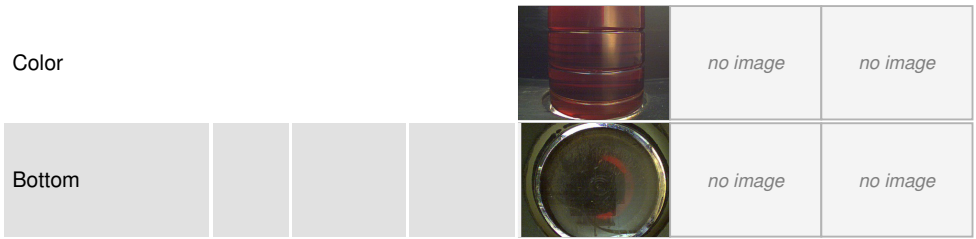
# OIL ANALYSIS REPORT



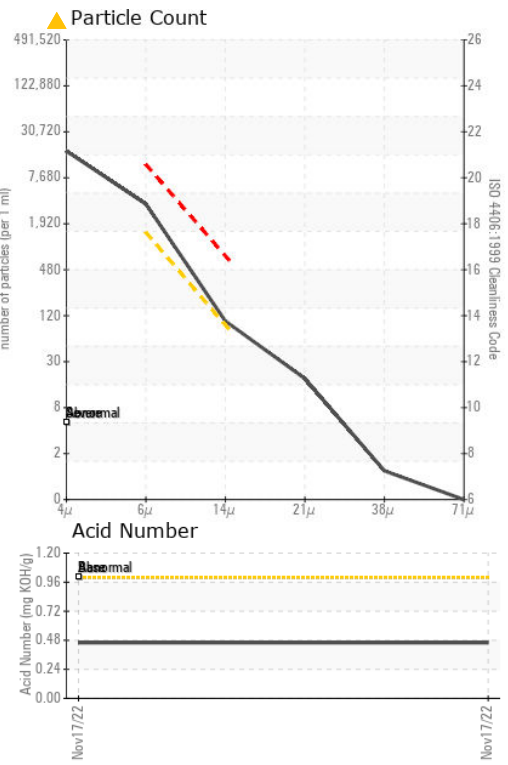
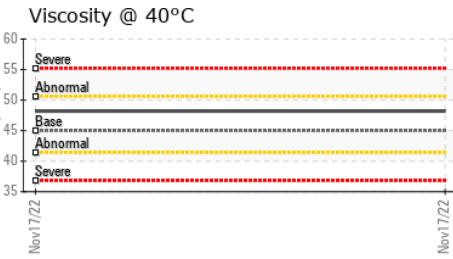
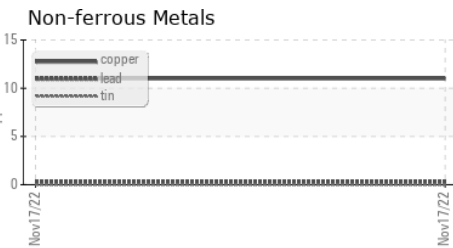
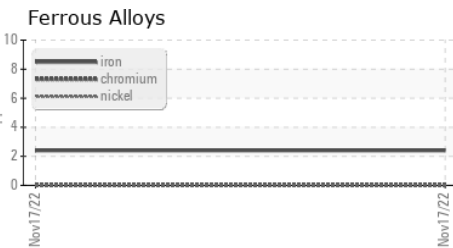
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual >0.05	<b>NEG</b>	---	---
Free Water	scalar	*Visual	<b>NEG</b>	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	<b>48.2</b>	---	---

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP47972D **Received** : 21 Nov 2022  
**Lab Number** : 05699792 **Diagnosed** : 23 Nov 2022  
**Unique Number** : 10229366 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**UPS**  
 11800 S HARLAN RD  
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 US 95330  
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 jbilal@ups.com

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)