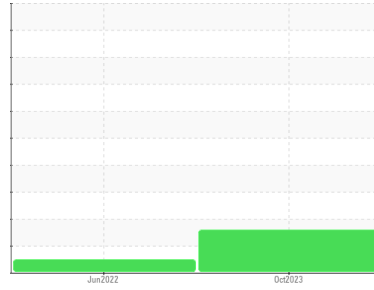




# PROBLEM SUMMARY

Sample Rating Trend



ISO



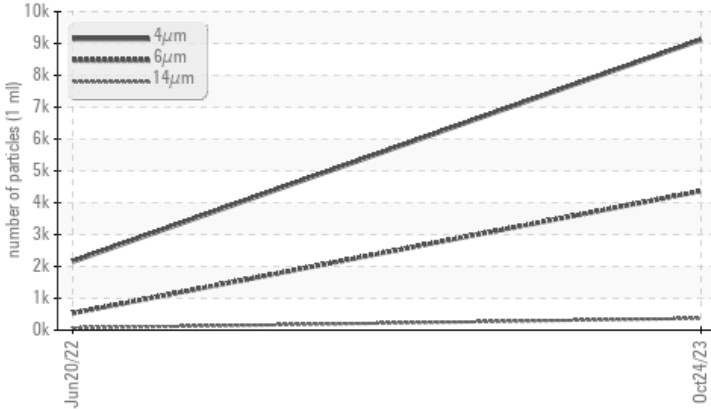
Machine Id  
**KAESER 7126505**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-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   |              |        | ABNORMAL       | NORMAL | --- |
|-----------------|--------------|--------|----------------|--------|-----|
| Particles >6µm  | ASTM D7647   | >1300  | ▲ <b>4363</b>  | 528    | --- |
| Particles >14µm | ASTM D7647   | >80    | ▲ <b>370</b>   | 68     | --- |
| Particles >21µm | ASTM D7647   | >20    | ▲ <b>93</b>    | 32     | --- |
| Oil Cleanliness | ISO 4406 (c) | >17/13 | ▲ <b>19/16</b> | 16/13  | --- |

Customer Id: AAIROC  
Sample No.: KC111706  
Lab Number: 06000508  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@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

20 Jun 2022 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. 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.

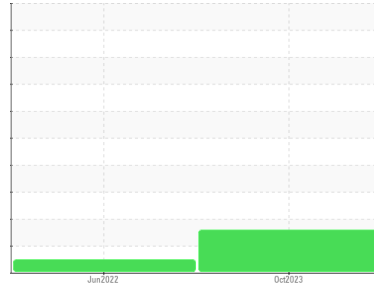
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER 7126505**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-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 suitable for further service.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2 |
|---------------|-------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info |             | <b>KC111706</b>    | KC85859     | ---      |
| Sample Date   | Client Info |             | <b>24 Oct 2023</b> | 20 Jun 2022 | ---      |
| Machine Age   | hrs         | Client Info | <b>15506</b>       | 9231        | ---      |
| Oil Age       | hrs         | Client Info | <b>4200</b>        | 6000        | ---      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | Changed     | ---      |
| Sample Status |             |             | <b>ABNORMAL</b>    | NORMAL      | ---      |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>0</b>     | <1       | ---      |
| Chromium | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | ---      |
| Nickel   | ppm    | ASTM D5185m >3  | <b>&lt;1</b> | 0        | ---      |
| Titanium | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | ---      |
| Silver   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0        | ---      |
| Aluminum | ppm    | ASTM D5185m >10 | <b>0</b>     | <1       | ---      |
| Lead     | ppm    | ASTM D5185m >10 | <b>&lt;1</b> | 0        | ---      |
| Copper   | ppm    | ASTM D5185m >50 | <b>23</b>    | 15       | ---      |
| Tin      | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | ---      |
| 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    | <b>0</b>  | 2        | ---      |
| Barium     | ppm    | ASTM D5185m 90 | <b>0</b>  | 0        | ---      |
| Molybdenum | ppm    | ASTM D5185m    | <b>0</b>  | 0        | ---      |
| Manganese  | ppm    | ASTM D5185m    | <b>0</b>  | 0        | ---      |
| Magnesium  | ppm    | ASTM D5185m 90 | <b>11</b> | 30       | ---      |
| Calcium    | ppm    | ASTM D5185m 2  | <b>0</b>  | 0        | ---      |
| Phosphorus | ppm    | ASTM D5185m    | <b>2</b>  | 4        | ---      |
| Zinc       | ppm    | ASTM D5185m    | <b>0</b>  | 6        | ---      |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>0</b>     | 0        | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>6</b>     | 14       | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>1</b>     | 3        | ---      |
| Water     | %      | ASTM D6304 >0.05 | <b>0.010</b> | 0.029    | ---      |
| ppm Water | ppm    | ASTM D6304 >500  | <b>109.7</b> | 298.6    | ---      |

## FLUID CLEANLINESS

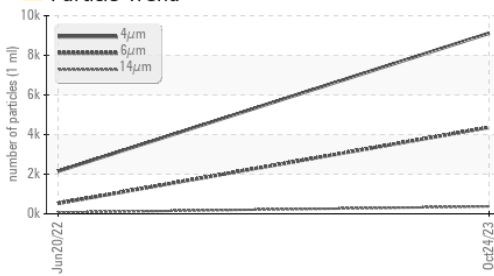
|                 | method       | limit/base | current        | history1 | history2 |
|-----------------|--------------|------------|----------------|----------|----------|
| Particles >4µm  | ASTM D7647   |            | <b>9117</b>    | 2149     | ---      |
| Particles >6µm  | ASTM D7647   | >1300      | ▲ <b>4363</b>  | 528      | ---      |
| Particles >14µm | ASTM D7647   | >80        | ▲ <b>370</b>   | 68       | ---      |
| Particles >21µm | ASTM D7647   | >20        | ▲ <b>93</b>    | 32       | ---      |
| Particles >38µm | ASTM D7647   | >4         | <b>4</b>       | 5        | ---      |
| Particles >71µm | ASTM D7647   | >3         | <b>0</b>       | 1        | ---      |
| Oil Cleanliness | ISO 4406 (c) | >17/13     | ▲ <b>19/16</b> | 16/13    | ---      |

## FLUID DEGRADATION

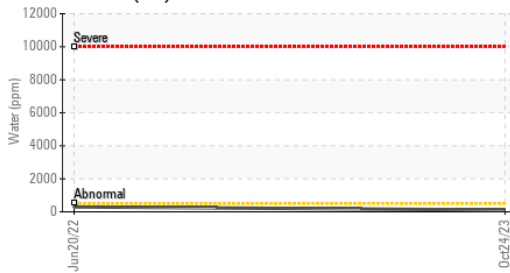
|                  | method   | limit/base     | current     | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | <b>0.31</b> | 0.32     | ---      |

# OIL ANALYSIS REPORT

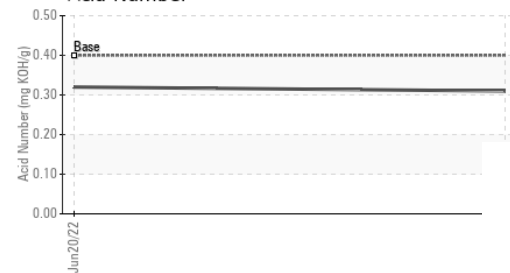
## ▲ Particle Trend



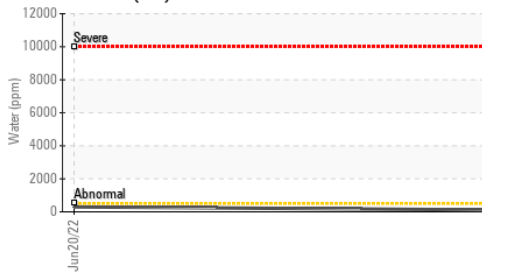
## Water (KF)



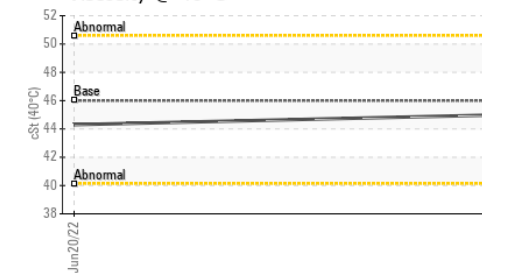
## Acid Number



## Water (KF)



## Viscosity @ 40°C

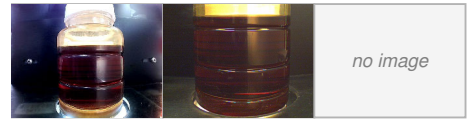


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
|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

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | 45.0    | 44.3     | ---      |

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

Color

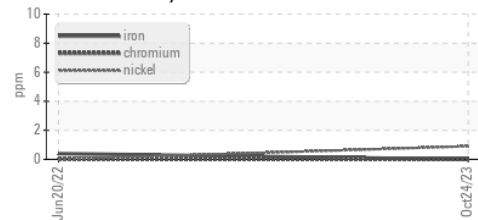


Bottom

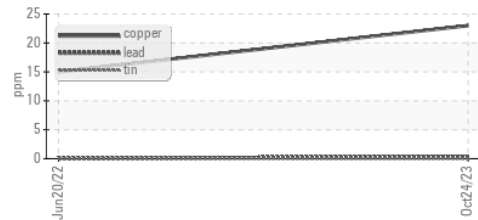


## GRAPHS

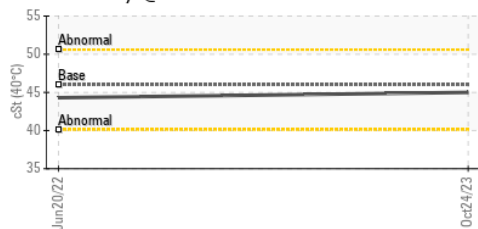
### Ferrous Alloys



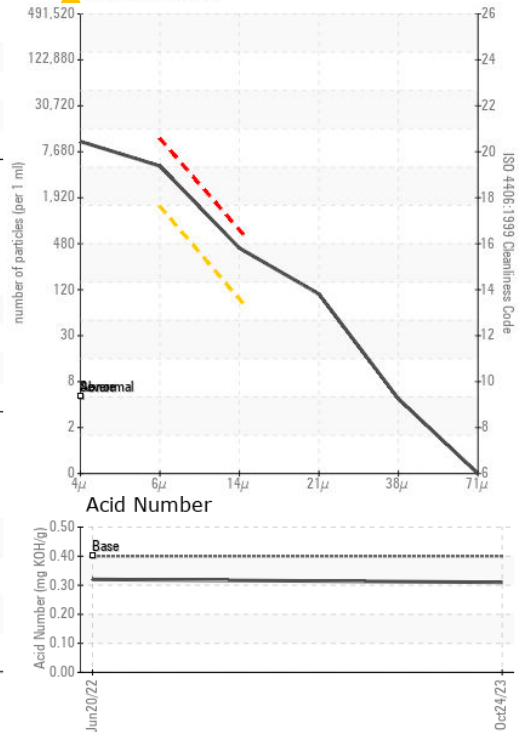
### Non-ferrous Metals



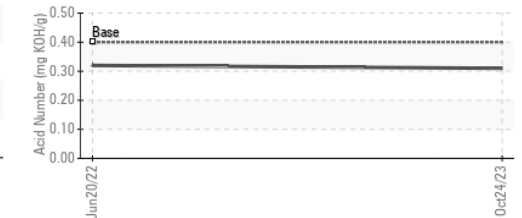
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC111706 **Received** : 07 Nov 2023  
**Lab Number** : 06000508 **Diagnosed** : 09 Nov 2023  
**Unique Number** : 10728868 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2

**A & I**  
 499 DELAWARE AVE  
 ROCHESTER, PA  
 US 15074  
 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: