



# PROBLEM SUMMARY

Sample Rating Trend



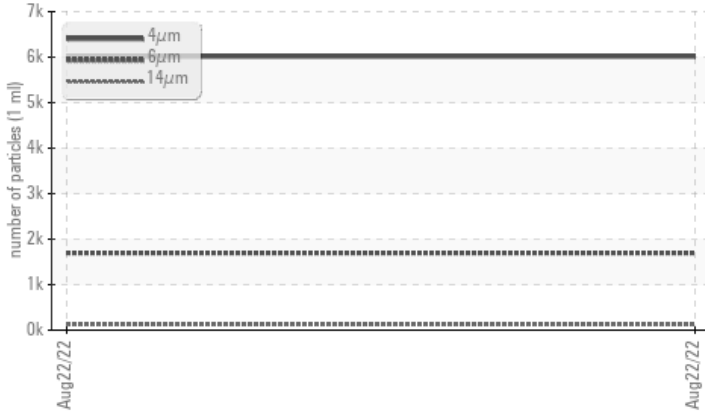
ISO



Machine Id  
**KAESER CSD 100 7859279 (S/N 1143)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- LTR)**

## 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   |              |           |                   | <b>ATTENTION</b> | --- | --- |
|-----------------|--------------|-----------|-------------------|------------------|-----|-----|
| Particles >6µm  | ASTM D7647   | >1300     | ▲ <b>1696</b>     | ---              | --- | --- |
| Particles >14µm | ASTM D7647   | >80       | ▲ <b>122</b>      | ---              | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ <b>20/18/14</b> | ---              | --- | --- |

Customer Id: PACALL  
 Sample No.: KC104874  
 Lab Number: 05636509  
 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

# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER CSD 100 7859279 (S/N 1143)**

Component

**Compressor**

Fluid

**KAESER SIGMA (OEM) S-460 (--- LTR)**

## 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 moderate 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>KC104874</b>    | ---         | ---      |
| Sample Date   | Client Info | <b>22 Aug 2022</b> | ---         | ---      |
| Machine Age   | hrs         | Client Info        | <b>9134</b> | ---      |
| Oil Age       | hrs         | Client Info        | <b>6488</b> | ---      |
| Oil Changed   | Client Info | <b>Not Chngd</b>   | ---         | ---      |
| Sample Status |             | <b>ATTENTION</b>   | ---         | ---      |

## WEAR METALS

| method   | limit/base | current         | history1     | history2 |
|----------|------------|-----------------|--------------|----------|
| Iron     | ppm        | ASTM D5185m >50 | <b>0</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>0</b>     | ---      |
| Copper   | ppm        | ASTM D5185m >50 | <b>9</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    | <b>0</b>     | ---      |
| Barium     | ppm        | ASTM D5185m 90 | <b>0</b>     | ---      |
| Molybdenum | ppm        | ASTM D5185m    | <b>0</b>     | ---      |
| Manganese  | ppm        | ASTM D5185m    | <b>0</b>     | ---      |
| Magnesium  | ppm        | ASTM D5185m 90 | <b>13</b>    | ---      |
| Calcium    | ppm        | ASTM D5185m 2  | <b>0</b>     | ---      |
| Phosphorus | ppm        | ASTM D5185m    | <b>&lt;1</b> | ---      |
| Zinc       | ppm        | ASTM D5185m    | <b>5</b>     | ---      |

## CONTAMINANTS

| method    | limit/base | current          | history1     | history2 |
|-----------|------------|------------------|--------------|----------|
| Silicon   | ppm        | ASTM D5185m >25  | <b>&lt;1</b> | ---      |
| Sodium    | ppm        | ASTM D5185m      | <b>3</b>     | ---      |
| Potassium | ppm        | ASTM D5185m >20  | <b>2</b>     | ---      |
| Water     | %          | ASTM D6304 >0.05 | <b>0.011</b> | ---      |
| ppm Water | ppm        | ASTM D6304 >500  | <b>110.0</b> | ---      |

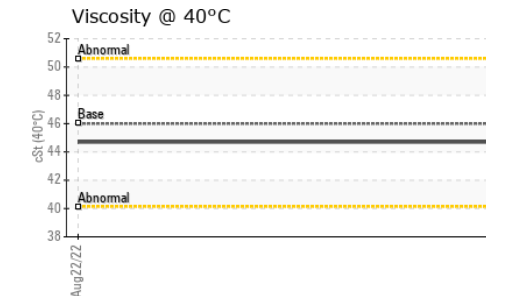
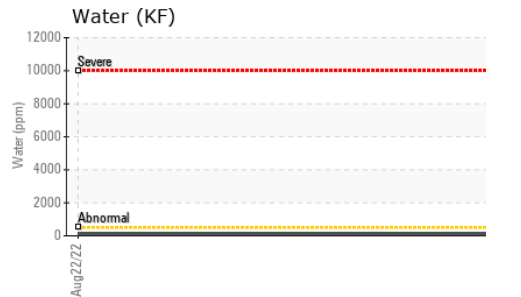
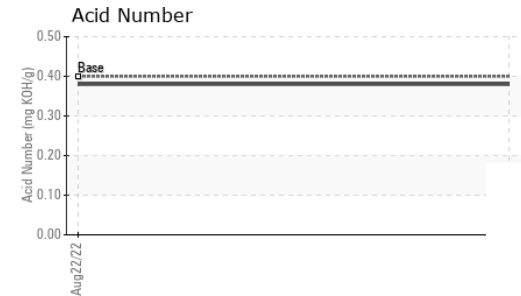
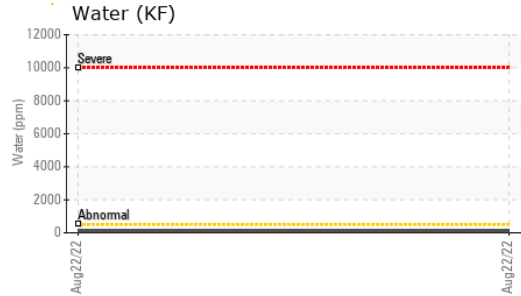
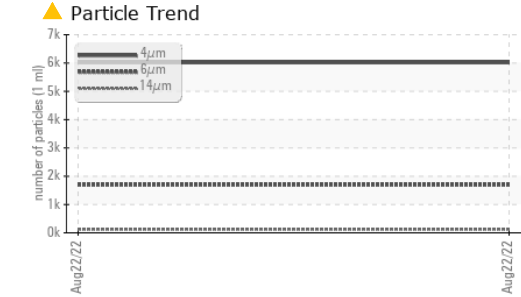
## FLUID CLEANLINESS

| method          | limit/base             | current           | history1 | history2 |
|-----------------|------------------------|-------------------|----------|----------|
| Particles >4µm  | ASTM D7647             | <b>6015</b>       | ---      | ---      |
| Particles >6µm  | ASTM D7647 >1300       | ▲ <b>1696</b>     | ---      | ---      |
| Particles >14µm | ASTM D7647 >80         | ▲ <b>122</b>      | ---      | ---      |
| Particles >21µm | ASTM D7647 >20         | <b>18</b>         | ---      | ---      |
| Particles >38µm | ASTM D7647 >4          | <b>3</b>          | ---      | ---      |
| Particles >71µm | ASTM D7647 >3          | <b>0</b>          | ---      | ---      |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | ▲ <b>20/18/14</b> | ---      | ---      |

## FLUID DEGRADATION

| method           | limit/base | current        | history1    | history2 |
|------------------|------------|----------------|-------------|----------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 0.4 | <b>0.38</b> | ---      |

# OIL ANALYSIS REPORT



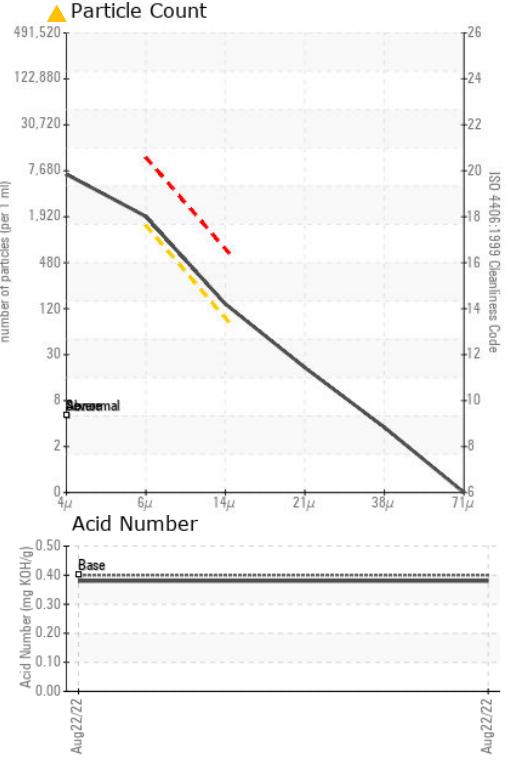
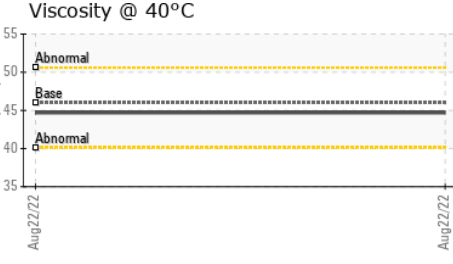
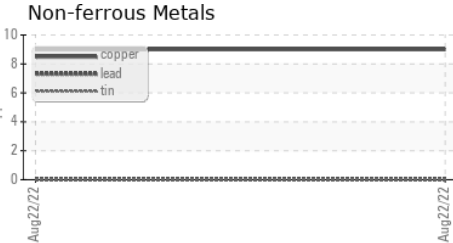
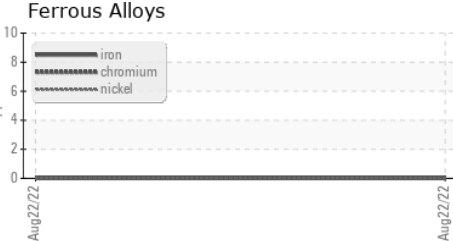
| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Debris           | scalar | *Visual    | NONE    | 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      | 44.7     | ---      | --- |

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

|        |  |  |  |          |          |
|--------|--|--|--|----------|----------|
| Color  |  |  |  | no image | no image |
| Bottom |  |  |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC104874 **Received** : 08 Sep 2022  
**Lab Number** : 05636509 **Diagnosed** : 09 Sep 2022  
**Unique Number** : 10126039 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**PACKAGING CORP. OF AMERICA**  
 7451 CETRONIA RD.  
 ALLENTOWN, PA  
 US 18106  
 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)