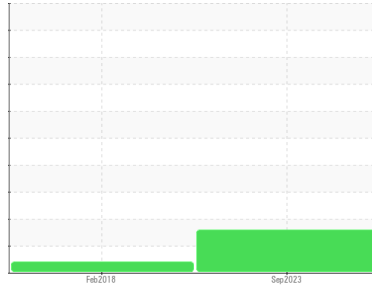




# PROBLEM SUMMARY

Sample Rating Trend



Machine Id  
**KAESER SM 11 2509943 (S/N 1171)**  
 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. No corrective action is recommended at this time. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status   |              |           | <b>ABNORMAL</b>   | ATTENTION | --- |
|-----------------|--------------|-----------|-------------------|-----------|-----|
| Particles >6µm  | ASTM D7647   | >1300     | ▲ <b>8935</b>     | ---       | --- |
| Particles >14µm | ASTM D7647   | >80       | ▲ <b>268</b>      | ---       | --- |
| Particles >21µm | ASTM D7647   | >20       | ▲ <b>59</b>       | ---       | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ <b>23/20/15</b> | ---       | --- |

Customer Id: DEPLEWTX  
 Sample No.: KCPA000088  
 Lab Number: 05965382  
 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

| 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

**12 Feb 2018 Diag: Angela Borella**

### VIS DEBRIS



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

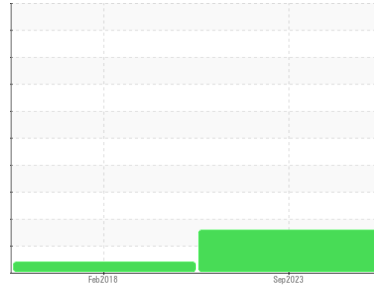
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER SM 11 2509943 (S/N 1171)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

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.

### 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>KCPA000088</b>  | KCP08240    | ---      |
| Sample Date        | Client Info |             |            | <b>15 Sep 2023</b> | 12 Feb 2018 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>2802</b>        | 1961        | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 1961        | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | ---      |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ATTENTION   | ---      |

| 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>0</b>     | <1       | ---      |
| Titanium    | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | ---      |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | ---      |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | <1       | ---      |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | <1       | ---      |
| Copper      | ppm | ASTM D5185m | >50        | <b>34</b>    | 33       | ---      |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | ---      |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | 0        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |

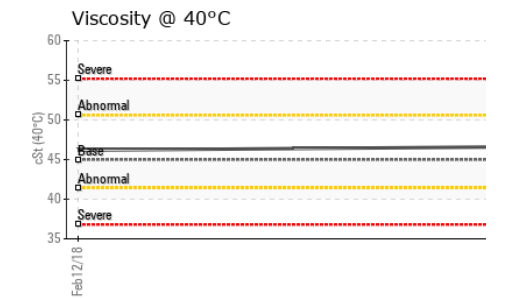
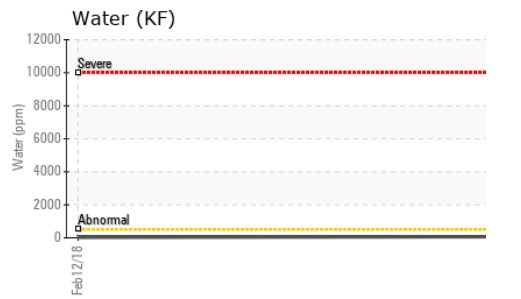
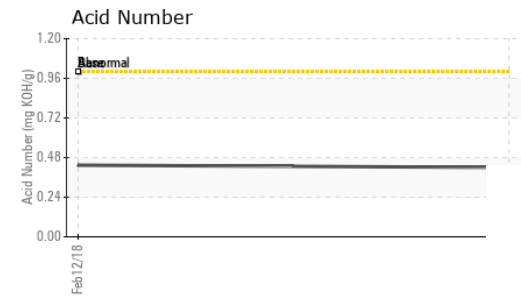
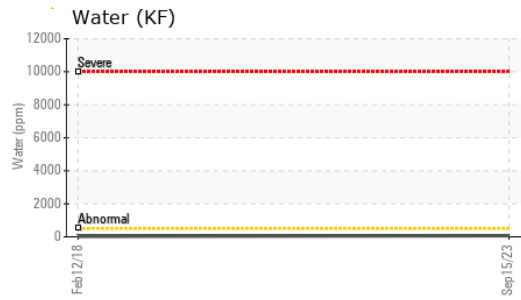
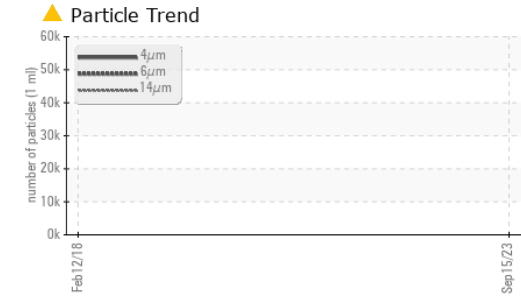
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | <1       | ---      |
| Barium     | ppm | ASTM D5185m | 90         | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | <1       | ---      |
| Magnesium  | ppm | ASTM D5185m | 100        | <b>4</b>     | 0        | ---      |
| Calcium    | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | 0        | ---      |
| Phosphorus | ppm | ASTM D5185m | 0          | <b>4</b>     | 58       | ---      |
| Zinc       | ppm | ASTM D5185m | 0          | <b>0</b>     | <1       | ---      |
| Sulfur     | ppm | ASTM D5185m | 23500      | <b>16221</b> | 18178    | ---      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | <1       | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | <1       | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>     | 0        | ---      |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.006</b> | 0.003    | ---      |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>66.3</b>  | 30       | ---      |

| FLUID CLEANLINESS |  | method       | limit/base | current           | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>58638</b>      | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>▲ 8935</b>     | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>▲ 268</b>      | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>▲ 59</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>▲ 23/20/15</b> | ---      | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.42</b> | 0.434    | ---      |

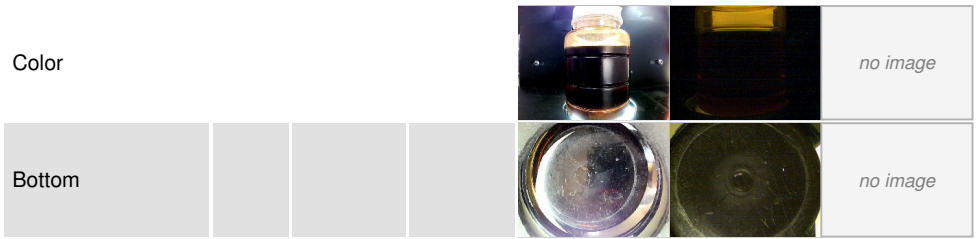
# OIL ANALYSIS REPORT



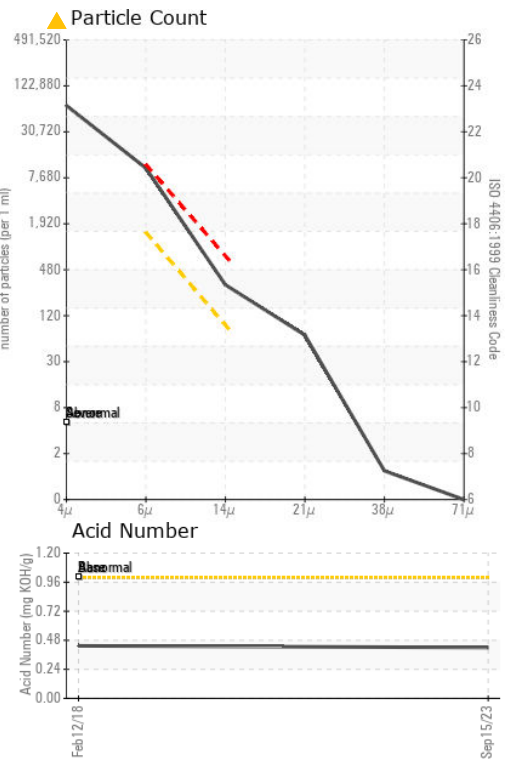
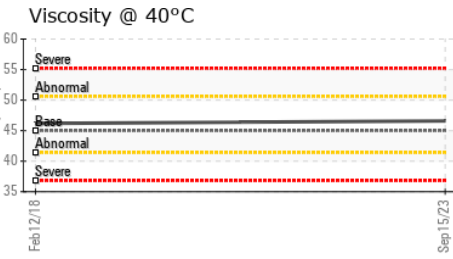
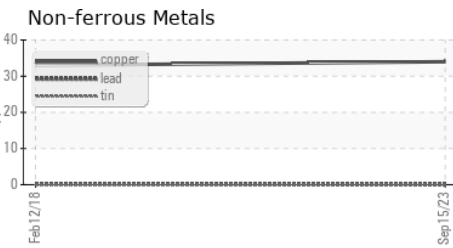
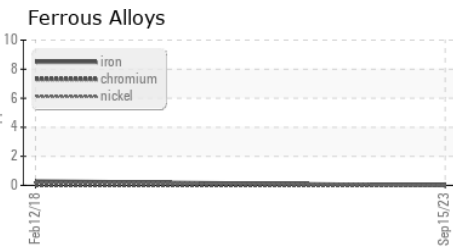
| VISUAL           | method | limit/base | current | history1     | history2 |
|------------------|--------|------------|---------|--------------|----------|
| White Metal      | scalar | *Visual    | NONE    | <b>LIGHT</b> | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | <b>NONE</b>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

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |
|------------------|--------|------------|---------|-------------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 45      | <b>46.6</b> | 46.18    |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA000088 **Received** : 29 Sep 2023  
**Lab Number** : 05965382 **Diagnosed** : 02 Oct 2023  
**Unique Number** : 10671933 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**DEPRAG**  
 640 HEMBRY ST  
 LEWISVILLE, TX  
 US 75057  
 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)