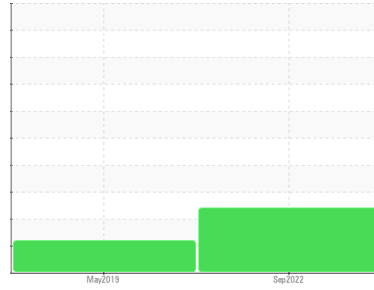




# PROBLEM SUMMARY

Sample Rating Trend



ISO



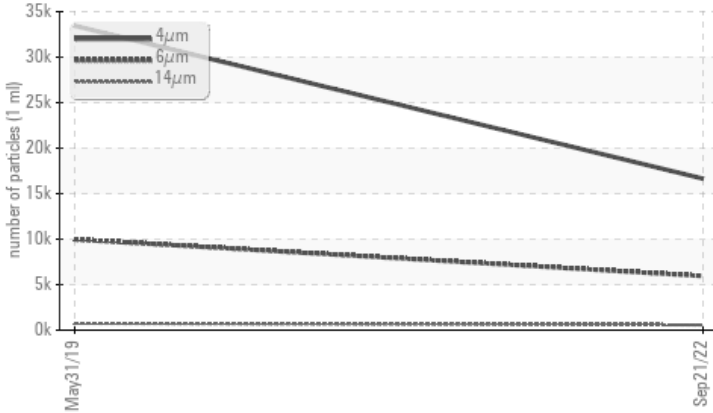
Machine Id  
**KAESER SM 10 4679506 (S/N 1360)**

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   |              |           | ABNORMAL   | ABNORMAL | --- |
|-----------------|--------------|-----------|------------|----------|-----|
| Particles >6µm  | ASTM D7647   | >1300     | ▲ 5944     | ▲ 9969   | --- |
| Particles >14µm | ASTM D7647   | >80       | ▲ 572      | ▲ 748    | --- |
| Particles >21µm | ASTM D7647   | >20       | ▲ 139      | ▲ 169    | --- |
| Particles >38µm | ASTM D7647   | >4        | ▲ 16       | 5        | --- |
| Particles >71µm | ASTM D7647   | >3        | ▲ 2        | 0        | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 21/20/16 | ▲ 20/17  | --- |

Customer Id: RGHKAN  
 Sample No.: KCP50147  
 Lab Number: 05664190  
 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

### 31 May 2019 Diag: Angela Borella

ISO



Oil and filter change at the time of sampling has been noted. 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

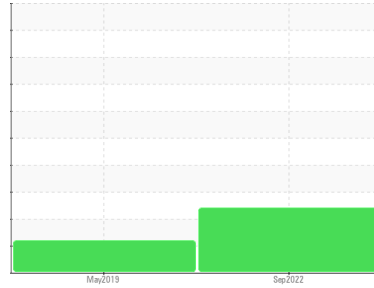
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER SM 10 4679506 (S/N 1360)**

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 suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|----------|
| Sample Number      | Client Info |             |            | <b>KCP50147</b>    | KCP18092    | ---      |
| Sample Date        | Client Info |             |            | <b>21 Sep 2022</b> | 31 May 2019 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>13957</b>       | 2723        | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | ---      |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ABNORMAL    | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>&lt;1</b> | 2        | ---      |
| 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>2</b>     | 7        | ---      |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | ---      |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | 0        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |

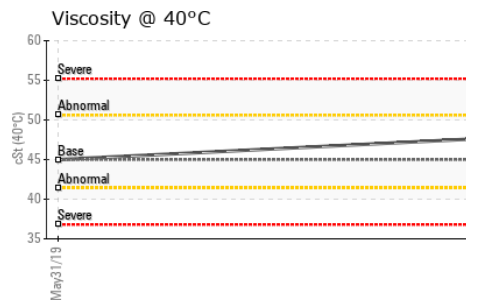
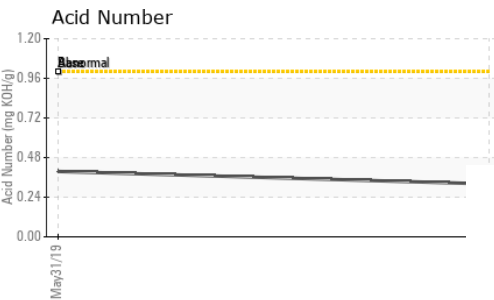
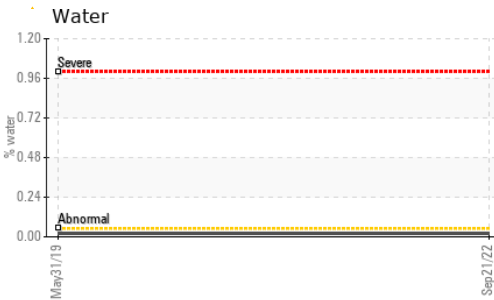
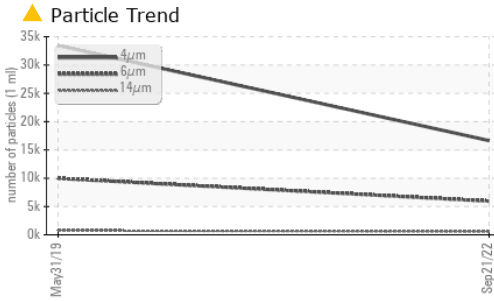
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | <1       | ---      |
| Barium     | ppm | ASTM D5185m | 90         | <b>2</b>     | 0        | ---      |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | ---      |
| Magnesium  | ppm | ASTM D5185m | 100        | <b>44</b>    | 28       | ---      |
| Calcium    | ppm | ASTM D5185m | 0          | <b>0</b>     | 1        | ---      |
| Phosphorus | ppm | ASTM D5185m | 0          | <b>10</b>    | 3        | ---      |
| Zinc       | ppm | ASTM D5185m | 0          | <b>64</b>    | 30       | ---      |
| Sulfur     | ppm | ASTM D5185m | 23500      | <b>19910</b> | 23737    | ---      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | 1        | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>12</b>    | 12       | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>3</b>     | 1        | ---      |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.021</b> | 0.021    | ---      |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>219.9</b> | 210      | ---      |

| FLUID CLEANLINESS |  | method       | limit/base | current           | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>16648</b>      | 33441    | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>▲ 5944</b>     | ▲ 9969   | ---      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>▲ 572</b>      | ▲ 748    | ---      |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>▲ 139</b>      | ▲ 169    | ---      |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>▲ 16</b>       | 5        | ---      |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>▲ 2</b>        | 0        | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>▲ 21/20/16</b> | ▲ 20/17  | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.32</b> | 0.396    | ---      |

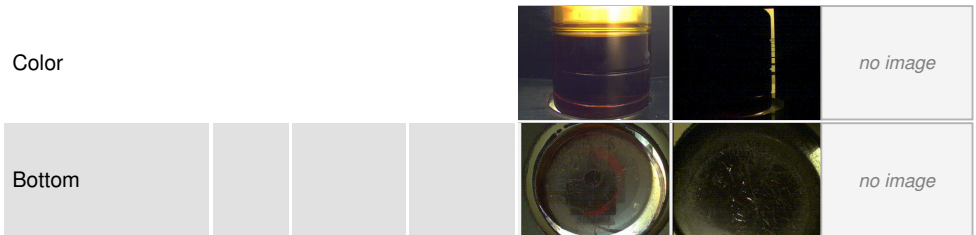
# OIL ANALYSIS REPORT



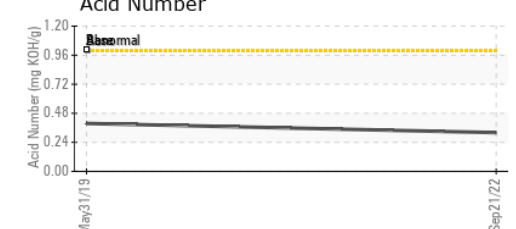
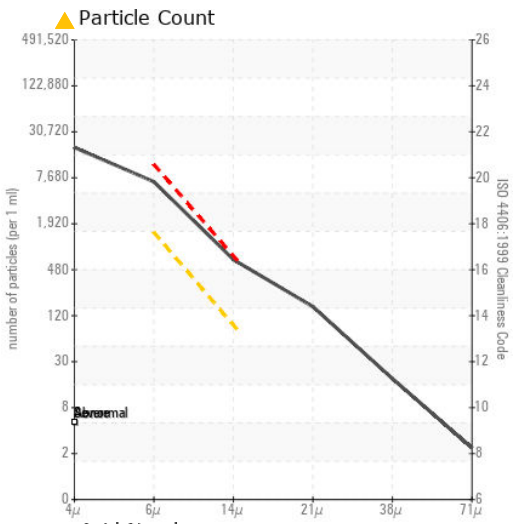
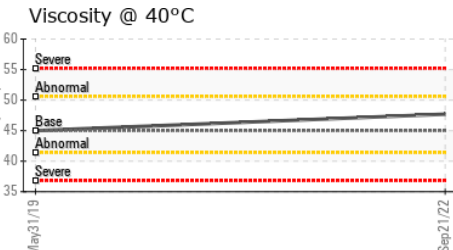
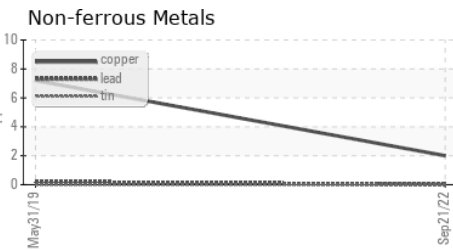
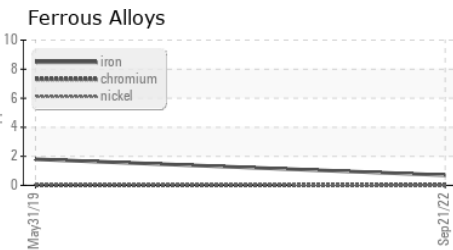
| PARAMETER        | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | VLITE    |
| 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  | 45      | 47.7     | 45.0     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP50147 **Received** : 11 Oct 2022  
**Lab Number** : 05664190 **Diagnosed** : 13 Oct 2022  
**Unique Number** : 10168759 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**RGH ENTERPRISE CARDINAL HEALTH**  
 12600 NE 40TH ST, SUITE 100  
 KANSAS CITY, MO  
 US 64161  
 Contact: CHRISTOPHER MORALES  
 CHRISTOPHER.MORALES@JLC.OM

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)