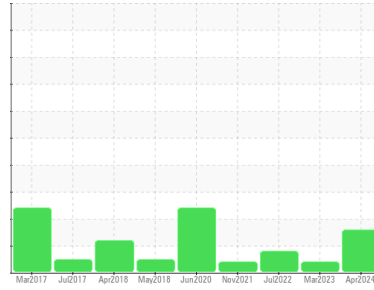




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER CSD 75 5080247 (S/N 1056)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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>KCPA015302</b>  | KCPA000276  | KCP51583    |
| Sample Date        | Client Info |             |            | <b>26 Apr 2024</b> | 01 Mar 2023 | 22 Jul 2022 |
| Machine Age        | hrs         | Client Info |            | <b>44182</b>       | 39591       | 35675       |
| Oil Age            | hrs         | Client Info |            | <b>3706</b>        | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | Changed     |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>0</b>     | 0        | 0        |
| Chromium    | ppm | ASTM D5185m | >10        | <b>0</b>     | <1       | 0        |
| Nickel      | ppm | ASTM D5185m | >3         | <b>0</b>     | <1       | 0        |
| Titanium    | ppm | ASTM D5185m | >3         | <b>0</b>     | <1       | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | <1       | 0        |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>0</b>     | <1       | 1        |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | <1       |
| Copper      | ppm | ASTM D5185m | >50        | <b>11</b>    | 4        | 11       |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | <1       |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

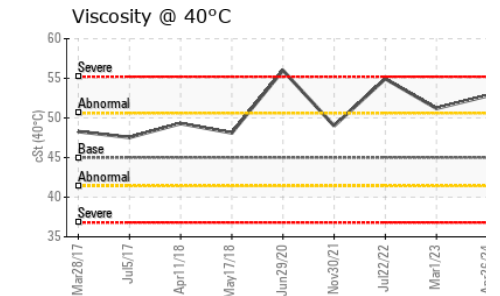
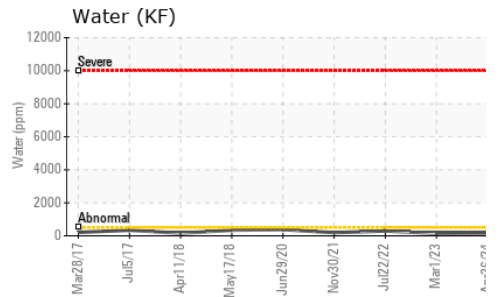
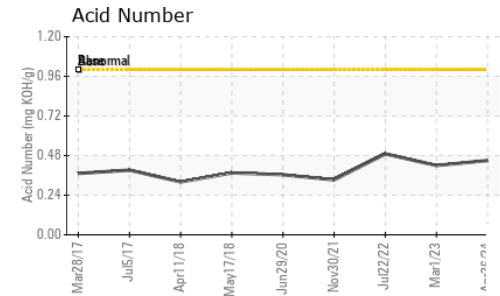
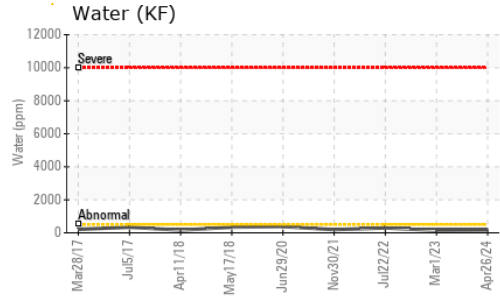
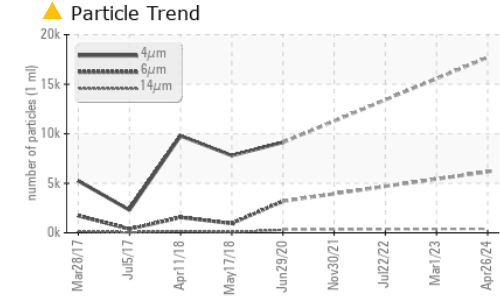
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>2</b>     | 55       | 36       |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | 1        | 0        |
| Magnesium  | ppm | ASTM D5185m | 100        | <b>33</b>    | 88       | 63       |
| Calcium    | ppm | ASTM D5185m | 0          | <b>0</b>     | 2        | 2        |
| Phosphorus | ppm | ASTM D5185m | 0          | <b>0</b>     | 1        | 5        |
| Zinc       | ppm | ASTM D5185m | 0          | <b>20</b>    | 1        | 8        |
| Sulfur     | ppm | ASTM D5185m | 23500      | <b>23561</b> | 23550    | 25310    |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | 1        | 3        |
| Sodium       | ppm | ASTM D5185m |            | <b>12</b>    | 38       | 34       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>4</b>     | 11       | 13       |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.016</b> | 0.014    | 0.029    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>168</b>   | 147.1    | 293.4    |

| FLUID CLEANLINESS |  | method       | limit/base | current           | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>17711</b>      | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>▲ 6170</b>     | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>▲ 397</b>      | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>▲ 88</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>▲ 21/20/16</b> | ---      | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.45</b> | 0.42     | 0.49     |

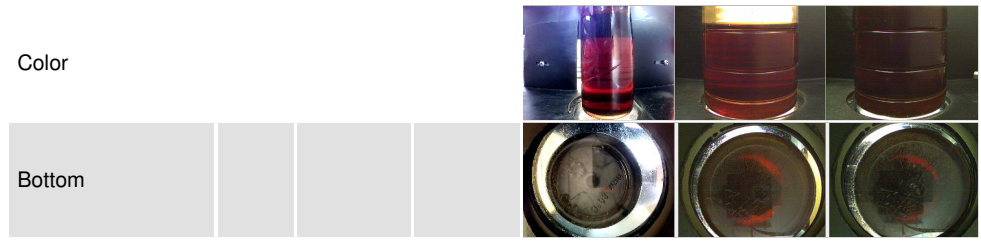
# OIL ANALYSIS REPORT



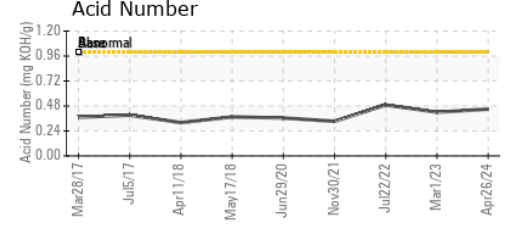
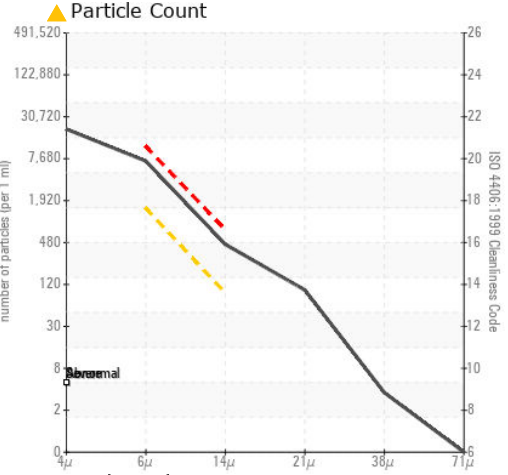
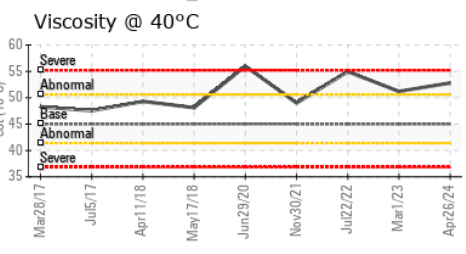
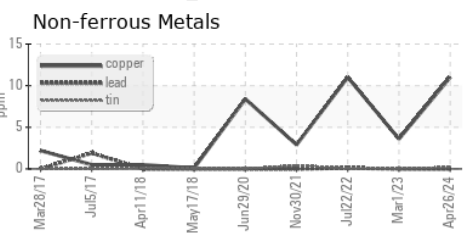
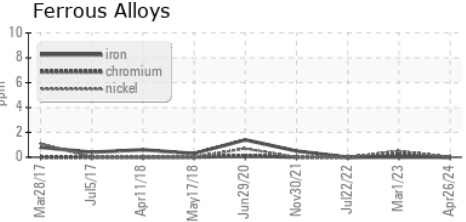
| VISUAL           | method | limit/base | current | history1     | history2       |
|------------------|--------|------------|---------|--------------|----------------|
| White Metal      | scalar | *Visual    | NONE    | NONE         | NONE           |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE         | NONE           |
| Precipitate      | scalar | *Visual    | NONE    | NONE         | NONE           |
| Silt             | scalar | *Visual    | NONE    | NONE         | NONE           |
| Debris           | scalar | *Visual    | NONE    | <b>LIGHT</b> | <b>▲ MODER</b> |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE         | NONE           |
| Appearance       | scalar | *Visual    | NORML   | NORML        | NORML          |
| Odor             | scalar | *Visual    | NORML   | NORML        | 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>52.8</b> | 51.2     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA015302  
**Lab Number** : 06174651  
**Unique Number** : 11020704  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )  
**Received** : 09 May 2024  
**Tested** : 13 May 2024  
**Diagnosed** : 13 May 2024 - Don Baldrige

**AMAZON BW2**  
 2010 BROENING HWY  
 BALTIMORE, MD  
 US 21224  
 Contact: SERVICE MANAGER  
 mrosteve@amazon.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)