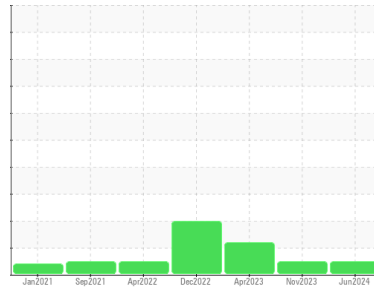




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**KAESER 7418453**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

**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>KC130964</b>    | KCPA007172  | KC111008    |
| Sample Date        | Client Info |             |            | <b>13 Jun 2024</b> | 14 Nov 2023 | 21 Apr 2023 |
| Machine Age        | hrs         | Client Info |            | <b>32575</b>       | 27489       | 22523       |
| Oil Age            | hrs         | Client Info |            | <b>5085</b>        | 0           | 1944        |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | 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>     | 0        | 0        |
| Nickel      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | 0        |
| Titanium    | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | <1       |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>3</b>     | 8        | 2        |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

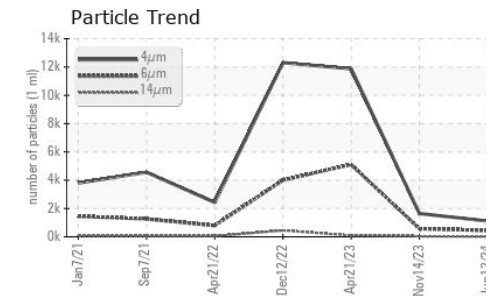
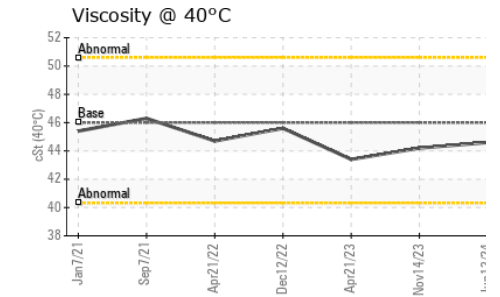
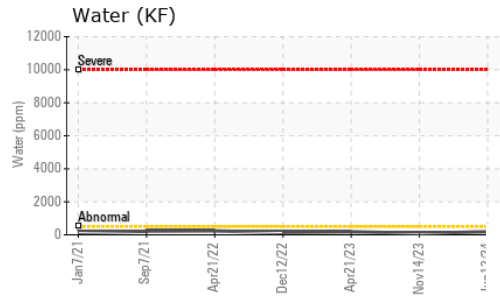
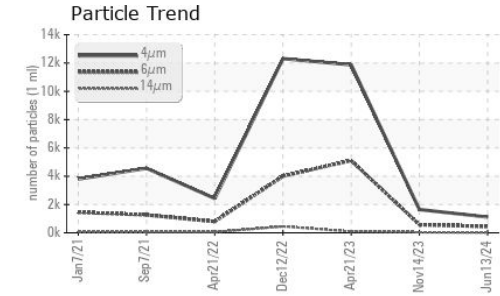
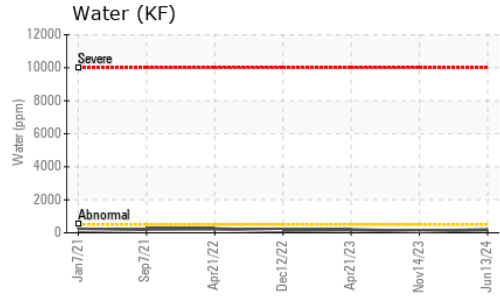
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>26</b>    | 0        | 63       |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | <1       |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>57</b>    | 3        | 77       |
| Calcium    | ppm | ASTM D5185m | 2          | <b>&lt;1</b> | 0        | 2        |
| Phosphorus | ppm | ASTM D5185m |            | <b>2</b>     | 0        | 0        |
| Zinc       | ppm | ASTM D5185m |            | <b>4</b>     | 0        | 1        |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | 0        | 0        |
| Sodium       | ppm | ASTM D5185m |            | <b>15</b>    | 5        | 14       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | 0        | <1       |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.018</b> | 0.009    | 0.018    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>188</b>   | 91.5     | 185.9    |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2   |
|-------------------|--|--------------|------------|-----------------|----------|------------|
| Particles >4µm    |  | ASTM D7647   |            | <b>1113</b>     | 1646     | 11876      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>447</b>      | 576      | ▲ 5108     |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>17</b>       | 39       | ▲ 89       |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>3</b>        | 10       | 14         |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>0</b>        | 1        | 1          |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0        | 0          |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>17/16/11</b> | 18/16/12 | ▲ 21/20/14 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.33</b> | 0.31     | 0.31     |

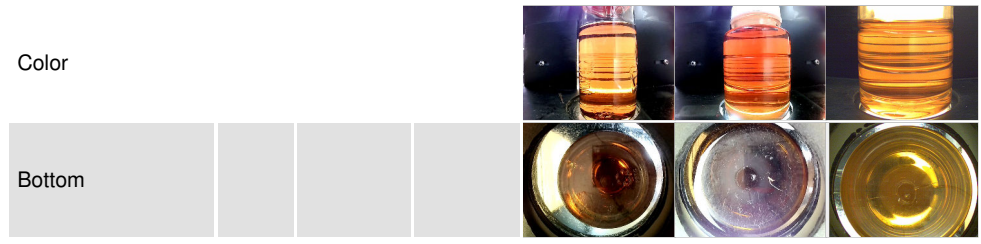
# OIL ANALYSIS REPORT



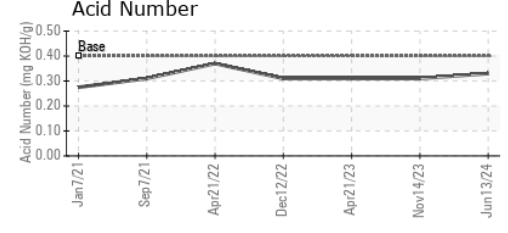
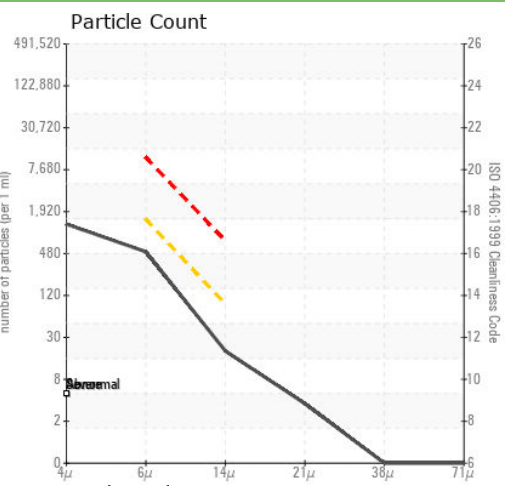
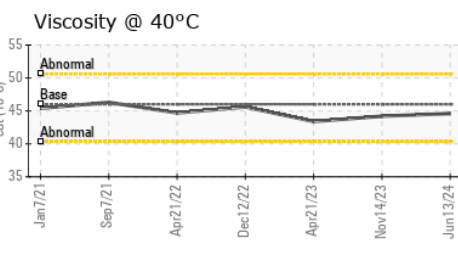
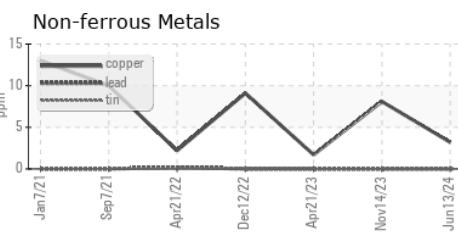
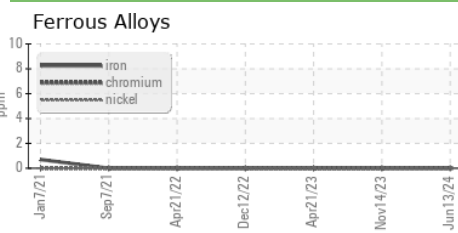
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
|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

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | 44.6    | 44.2     | 43.4     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC130964  
**Lab Number** : 06212448  
**Unique Number** : 11085312  
**Test Package** : IND 2  
**Received** : 17 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Don Baldrige

**GALLS PARENT HOLDINGS**  
 1340 RUSSELL CAVE RD  
 LEXINGTON, KY  
 US 40505  
 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)