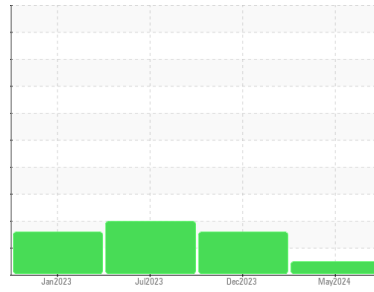




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER 8435428**  
 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**  
 The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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>KC129154</b>    | KC111592    | KC110518    |
| Sample Date        | Client Info |             |            | <b>20 May 2024</b> | 15 Dec 2023 | 03 Jul 2023 |
| Machine Age        | hrs         | Client Info |            | <b>12098</b>       | 9164        | 6587        |
| Oil Age            | hrs         | Client Info |            | <b>2934</b>        | 3000        | 3177        |
| Oil Changed        | Client Info |             |            | <b>Not Changed</b> | Changed     | Not Changed |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ATTENTION   | ABNORMAL    |

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

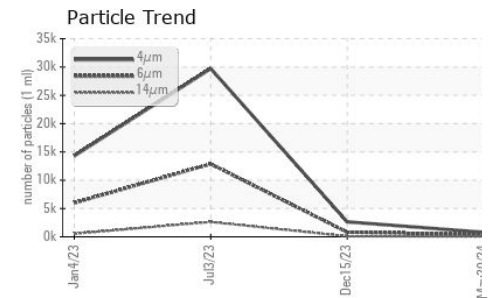
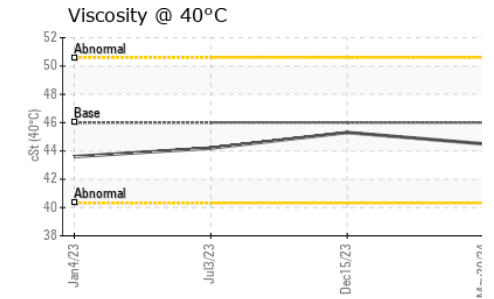
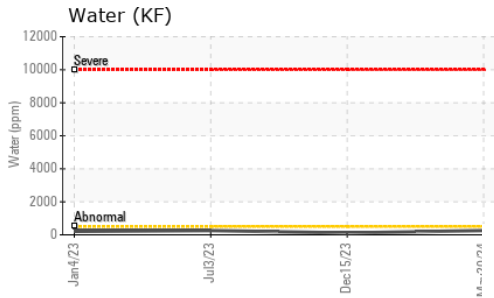
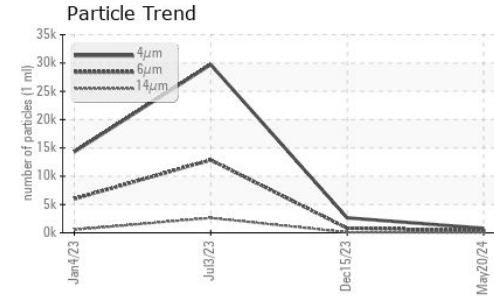
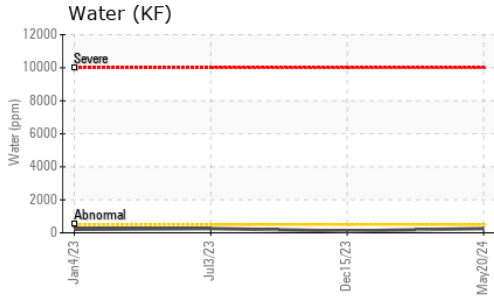
| ADDITIVES  |     | method      | limit/base | current   | history1 | history2 |
|------------|-----|-------------|------------|-----------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>  | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>66</b> | 66       | 38       |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>  | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>  | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>77</b> | 84       | 65       |
| Calcium    | ppm | ASTM D5185m | 2          | <b>3</b>  | 4        | 3        |
| Phosphorus | ppm | ASTM D5185m |            | <b>0</b>  | 16       | 0        |
| Zinc       | ppm | ASTM D5185m |            | <b>0</b>  | 0        | 5        |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>0</b>     | 1        | 5        |
| Sodium       | ppm | ASTM D5185m |            | <b>16</b>    | 4        | 9        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>3</b>     | 1        | 5        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.025</b> | 0.011    | 0.025    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>260</b>   | 111      | 259.2    |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1   | history2   |
|-------------------|--|--------------|------------|-----------------|------------|------------|
| Particles >4µm    |  | ASTM D7647   |            | <b>803</b>      | 2639       | 29714      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>367</b>      | 813        | ▲ 12876    |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>44</b>       | ● 93       | ▲ 2618     |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>8</b>        | ● 46       | ▲ 928      |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>1</b>        | ● 10       | ▲ 41       |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0          | 2          |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>17/16/13</b> | ● 19/17/14 | ▲ 22/21/19 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.36</b> | 0.35     | 0.32     |

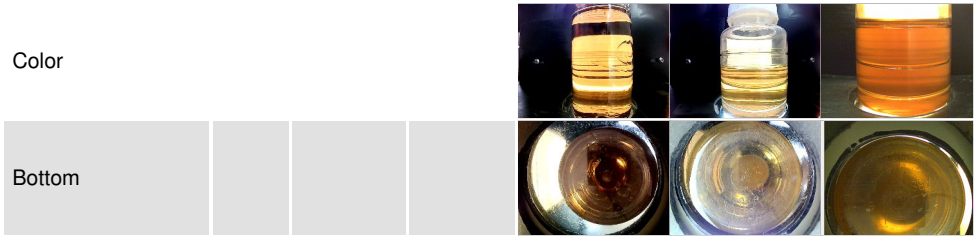
# OIL ANALYSIS REPORT



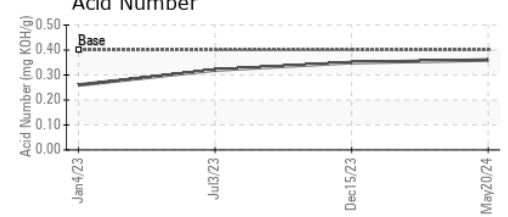
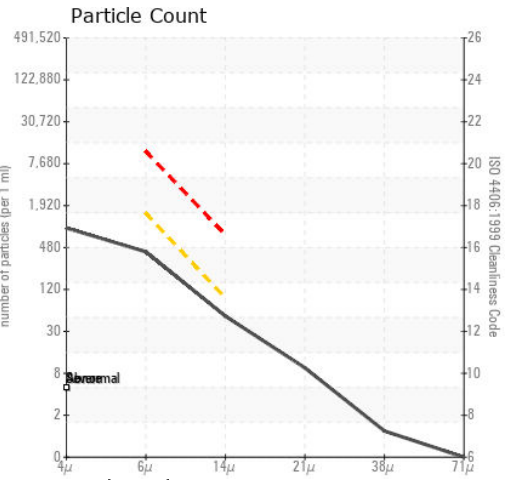
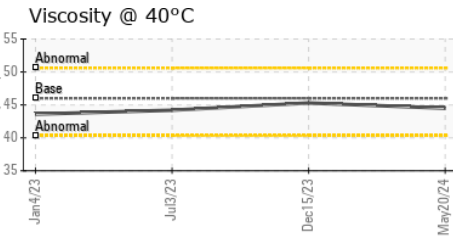
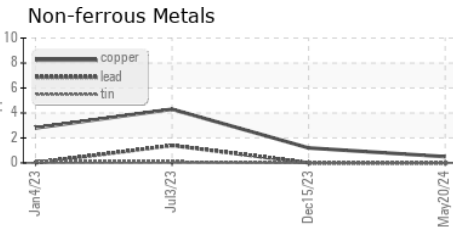
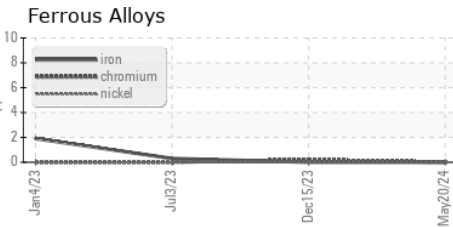
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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 | 44.5    | 45.3     | 44.2     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC129154 **Received** : 25 Jun 2024  
**Lab Number** : 06219725 **Tested** : 26 Jun 2024  
**Unique Number** : 11097922 **Diagnosed** : 26 Jun 2024 - Don Baldrige  
**Test Package** : IND 2

**SOLO LABS**  
 415 LAUREL ST  
 KUTZTOWN, PA  
 US 19530  
 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)