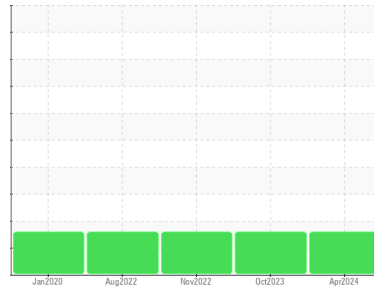




# OIL ANALYSIS REPORT

## Sample Rating Trend



Machine Id  
**KAESER ASD 25T 6598952 (S/N 1007)**  
 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>KCPA016355</b>  | KCPA006573  | KCP45801    |
| Sample Date   | Client Info |             | <b>05 Apr 2024</b> | 27 Oct 2023 | 18 Nov 2022 |
| Machine Age   | hrs         | Client Info | <b>35110</b>       | 31413       | 24755       |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | 1523        |
| 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        | <1       |
| 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>0</b>     | 0        | 0        |
| Silver   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >10 | <b>1</b>     | <1       | 3        |
| Lead     | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >50 | <b>&lt;1</b> | 3        | 2        |
| 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 0     | <b>&lt;1</b> | 2        | 16       |
| Barium     | ppm    | ASTM D5185m 90    | <b>28</b>    | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 0     | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m       | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm    | ASTM D5185m 100   | <b>48</b>    | 2        | 16       |
| Calcium    | ppm    | ASTM D5185m 0     | <b>0</b>     | 2        | 0        |
| Phosphorus | ppm    | ASTM D5185m 0     | <b>8</b>     | 8        | 354      |
| Zinc       | ppm    | ASTM D5185m 0     | <b>0</b>     | 0        | 4        |
| Sulfur     | ppm    | ASTM D5185m 23500 | <b>22101</b> | 13701    | 4310     |

### CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>0</b>     | 0        | <1       |
| Sodium    | ppm    | ASTM D5185m      | <b>10</b>    | 0        | <1       |
| Potassium | ppm    | ASTM D5185m >20  | <b>3</b>     | 0        | 0        |
| Water     | %      | ASTM D6304 >0.05 | <b>0.019</b> | 0.011    | 0.021    |
| ppm Water | ppm    | ASTM D6304 >500  | <b>192</b>   | 117.8    | 217.8    |

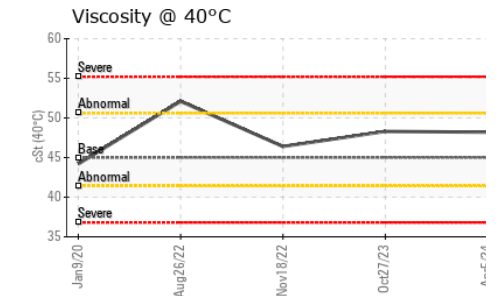
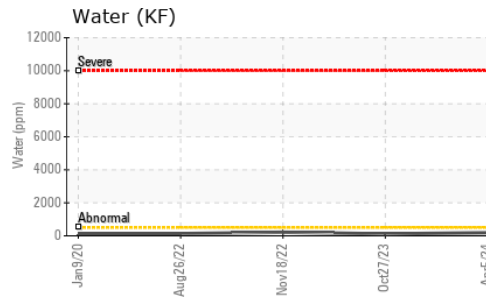
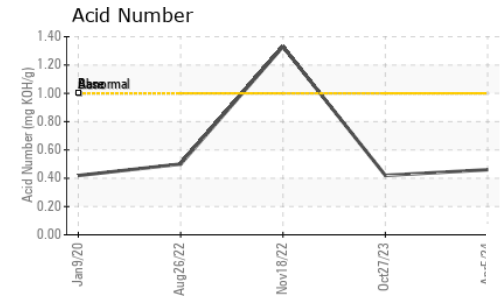
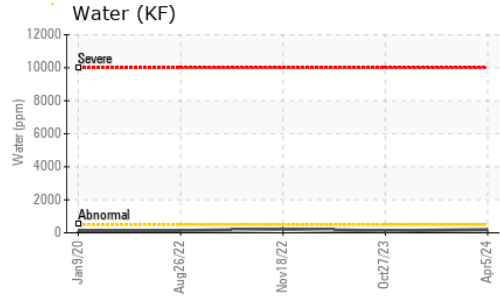
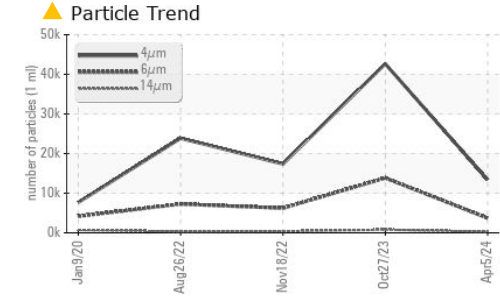
### FLUID CLEANLINESS

|                 | method                 | limit/base | current           | history1   | history2   |
|-----------------|------------------------|------------|-------------------|------------|------------|
| Particles >4µm  | ASTM D7647             |            | <b>13396</b>      | 42634      | 17379      |
| Particles >6µm  | ASTM D7647 >1300       |            | <b>▲ 3725</b>     | ▲ 13854    | ▲ 6228     |
| Particles >14µm | ASTM D7647 >80         |            | <b>▲ 254</b>      | ▲ 790      | ▲ 374      |
| Particles >21µm | ASTM D7647 >20         |            | <b>▲ 71</b>       | ▲ 126      | ▲ 57       |
| Particles >38µm | ASTM D7647 >4          |            | <b>4</b>          | 2          | 5          |
| Particles >71µm | ASTM D7647 >3          |            | <b>0</b>          | 0          | 0          |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 |            | <b>▲ 21/19/15</b> | ▲ 23/21/17 | ▲ 21/20/16 |

### FLUID DEGRADATION

|                  | method   | limit/base     | current     | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | <b>0.46</b> | 0.42     | 1.33     |

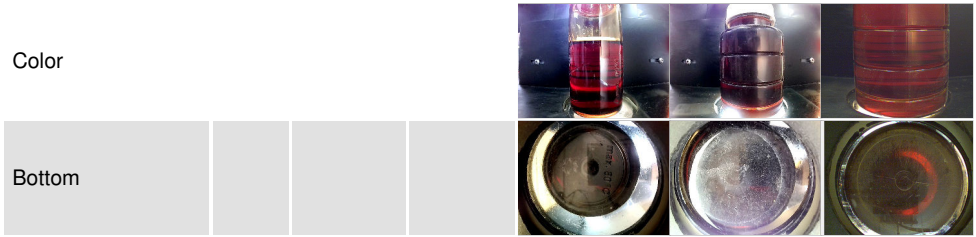
# OIL ANALYSIS REPORT



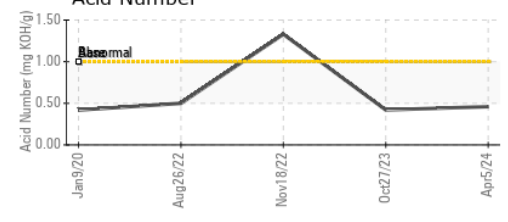
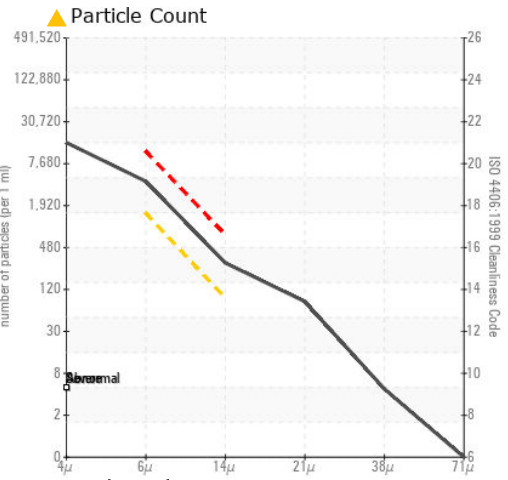
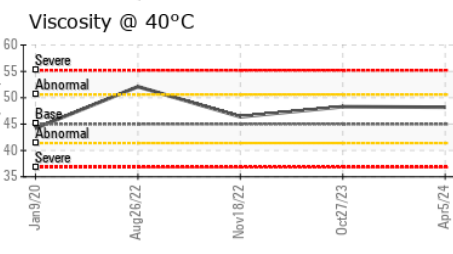
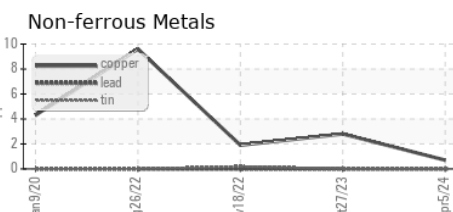
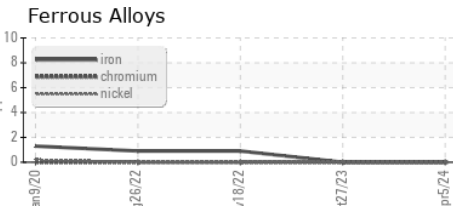
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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  | 45      | 48.2     | 48.3     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA016355 **Received** : 09 May 2024  
**Lab Number** : 06174657 **Tested** : 13 May 2024  
**Unique Number** : 11020710 **Diagnosed** : 13 May 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**INSOLUTION MANUFACTURING**  
 2364 HWY MN 7  
 LESTER PRAIRIE, MN  
 US 55354  
 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)