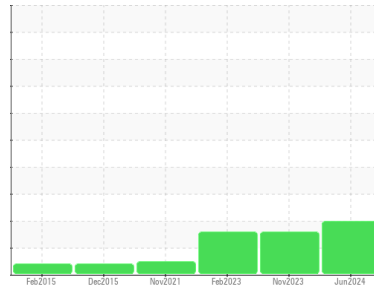




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER ASD 25 4483692 (S/N 1095)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- LTR)**

## 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>KCPA018449</b>  | KCPA010768  | KCP46374    |
| Sample Date        | Client Info |             |            | <b>04 Jun 2024</b> | 20 Nov 2023 | 22 Feb 2023 |
| Machine Age        | hrs         | Client Info |            | <b>49050</b>       | 46937       | 43840       |
| Oil Age            | hrs         | Client Info |            | <b>5210</b>        | 0           | 5720        |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | Changed     |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ABNORMAL    | ATTENTION   |

| WEAR METALS |     | method      | limit/base | current    | history1 | history2 |
|-------------|-----|-------------|------------|------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>0</b>   | <1       | 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>   | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>   | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>0</b>   | <1       | 0        |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>   | <1       | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>8</b>   | 8        | 9        |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>   | <1       | 0        |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b> | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>   | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>   | <1       | 0        |

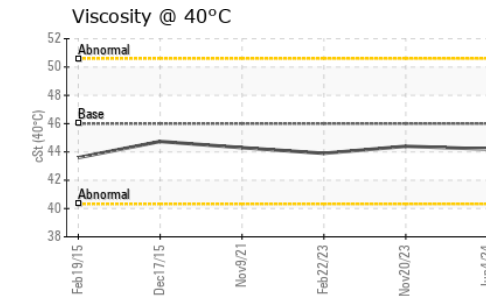
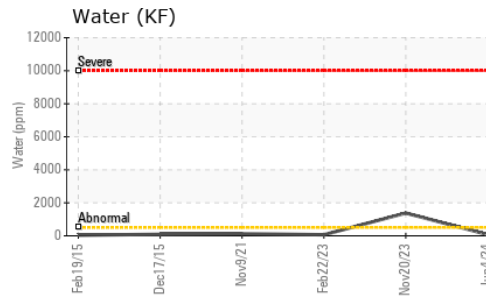
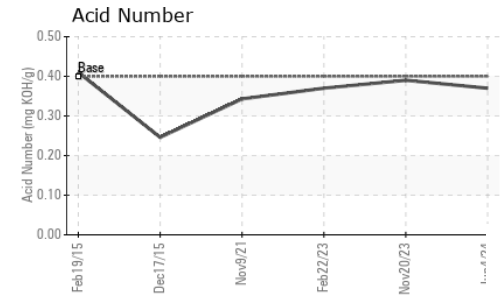
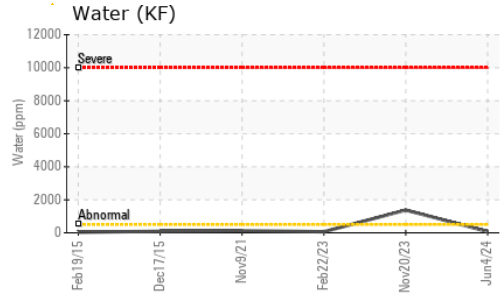
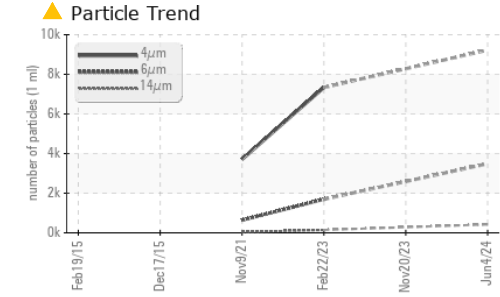
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>0</b>     | 1        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>0</b>     | 4        | 0        |
| Calcium    | ppm | ASTM D5185m | 2          | <b>0</b>     | 2        | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>2</b>     | 3        | 0        |
| Zinc       | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Sulfur     | ppm | ASTM D5185m |            | <b>18968</b> | 21226    | 16363    |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | 2        | 1        |
| Sodium       | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>     | 1        | 0        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.007</b> | ▲ 0.138  | 0.006    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>78</b>    | ▲ 1380   | 64.2     |

| FLUID CLEANLINESS |  | method       | limit/base | current           | history1 | history2   |
|-------------------|--|--------------|------------|-------------------|----------|------------|
| Particles >4µm    |  | ASTM D7647   |            | <b>9227</b>       | ---      | 7338       |
| Particles >6µm    |  | ASTM D7647   | >1300      | ▲ <b>3490</b>     | ---      | ● 1694     |
| Particles >14µm   |  | ASTM D7647   | >80        | ▲ <b>421</b>      | ---      | ● 142      |
| Particles >21µm   |  | ASTM D7647   | >20        | ▲ <b>144</b>      | ---      | ● 40       |
| Particles >38µm   |  | ASTM D7647   | >4         | ▲ <b>12</b>       | ---      | 2          |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>1</b>          | ---      | 0          |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | ▲ <b>20/19/16</b> | ---      | ● 20/18/14 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.37</b> | 0.39     | 0.37     |

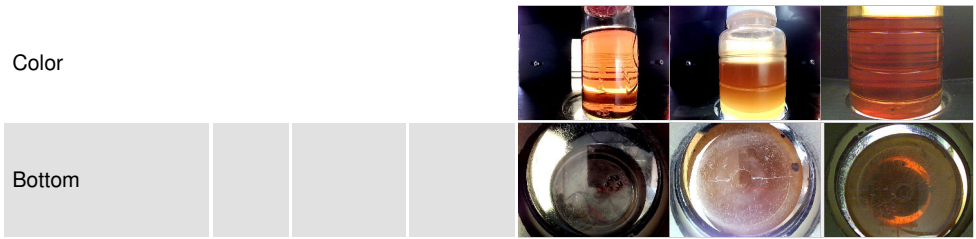
# OIL ANALYSIS REPORT



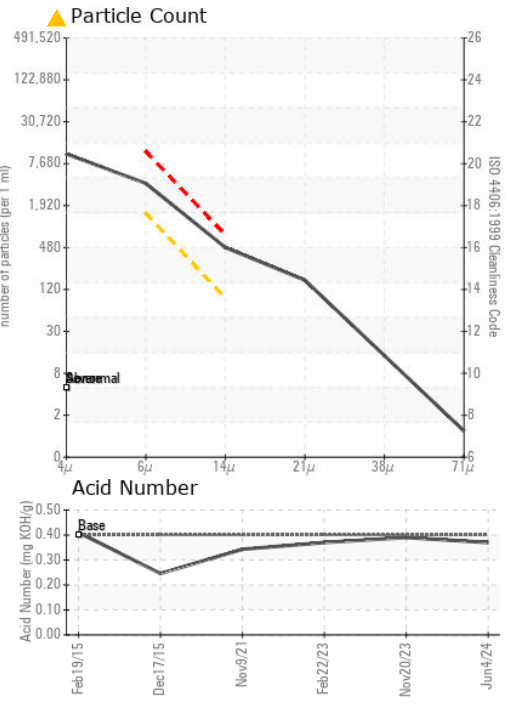
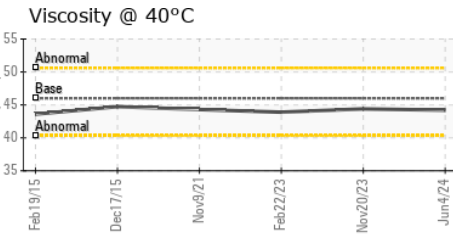
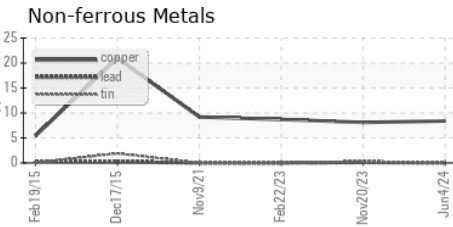
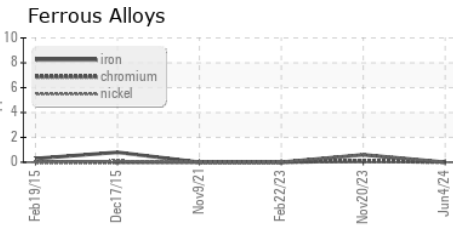
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | HEAVY    |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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      | 0.2%     |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | 44.2    | 44.4     | 43.9     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA018449 **Received** : 11 Jun 2024  
**Lab Number** : 06207087 **Tested** : 13 Jun 2024  
**Unique Number** : 11074548 **Diagnosed** : 13 Jun 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**FMC**  
 4461 BUSINESS DR  
 SHINGLE SPRINGS, CA  
 US 95682  
 Contact:

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)

T:  
F: