



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**7183629 (S/N 1020)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-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>KCPA018212</b>  | ---      | ---      |
| Sample Date        | Client Info |             | <b>09 Jan 2024</b> | ---      | ---      |
| Machine Age        | hrs         | Client Info | <b>27537</b>       | ---      | ---      |
| Oil Age            | hrs         | Client Info | <b>3000</b>        | ---      | ---      |
| Oil Changed        | Client Info |             | <b>Changed</b>     | ---      | ---      |
| Sample Status      |             |             | <b>ABNORMAL</b>    | ---      | ---      |

| WEAR METALS | method | limit/base      | current      | history1 | history2 |
|-------------|--------|-----------------|--------------|----------|----------|
| Iron        | ppm    | ASTM D5185m >50 | <b>5</b>     | ---      | ---      |
| Chromium    | ppm    | ASTM D5185m >10 | <b>&lt;1</b> | ---      | ---      |
| Nickel      | ppm    | ASTM D5185m >3  | <b>0</b>     | ---      | ---      |
| Titanium    | ppm    | ASTM D5185m >3  | <b>&lt;1</b> | ---      | ---      |
| Silver      | ppm    | ASTM D5185m >2  | <b>&lt;1</b> | ---      | ---      |
| Aluminum    | ppm    | ASTM D5185m >10 | <b>5</b>     | ---      | ---      |
| Lead        | ppm    | ASTM D5185m >10 | <b>0</b>     | ---      | ---      |
| Copper      | ppm    | ASTM D5185m >50 | <b>5</b>     | ---      | ---      |
| Tin         | ppm    | ASTM D5185m >10 | <b>&lt;1</b> | ---      | ---      |
| Vanadium    | ppm    | ASTM D5185m     | <b>&lt;1</b> | ---      | ---      |
| Cadmium     | ppm    | ASTM D5185m     | <b>&lt;1</b> | ---      | ---      |

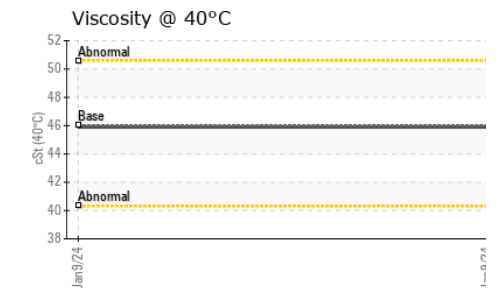
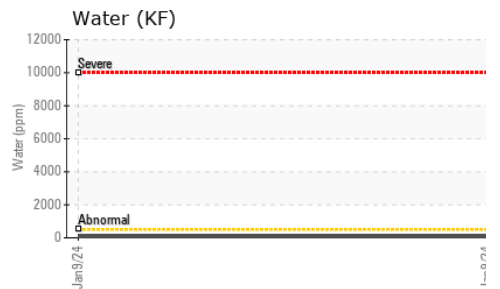
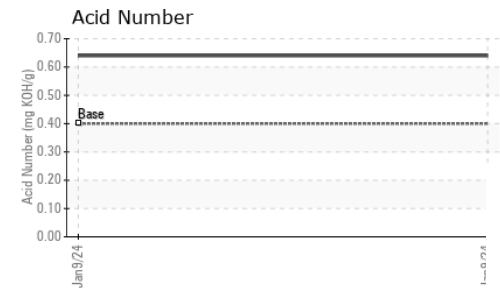
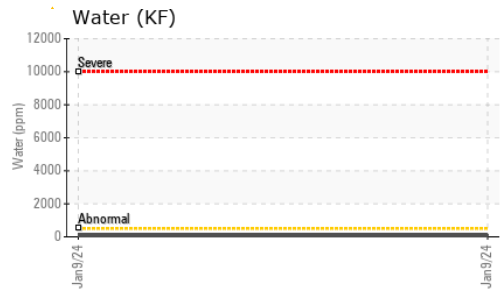
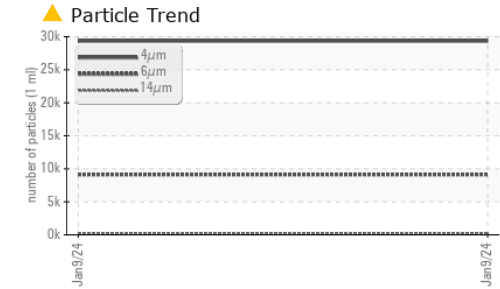
| ADDITIVES  | method | limit/base     | current      | history1 | history2 |
|------------|--------|----------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m    | <b>0</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185m 90 | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m    | <b>&lt;1</b> | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m    | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m 90 | <b>3</b>     | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m 2  | <b>0</b>     | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m    | <b>219</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m    | <b>318</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m    | <b>1144</b>  | ---      | ---      |

| CONTAMINANTS | method | limit/base       | current      | history1 | history2 |
|--------------|--------|------------------|--------------|----------|----------|
| Silicon      | ppm    | ASTM D5185m >25  | <b>0</b>     | ---      | ---      |
| Sodium       | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Potassium    | ppm    | ASTM D5185m >20  | <b>2</b>     | ---      | ---      |
| Water        | %      | ASTM D6304 >0.05 | <b>0.007</b> | ---      | ---      |
| ppm Water    | ppm    | ASTM D6304 >500  | <b>72</b>    | ---      | ---      |

| FLUID CLEANLINESS | method       | limit/base | current           | history1 | history2 |
|-------------------|--------------|------------|-------------------|----------|----------|
| Particles >4µm    | ASTM D7647   |            | <b>29351</b>      | ---      | ---      |
| Particles >6µm    | ASTM D7647   | >1300      | <b>▲ 9128</b>     | ---      | ---      |
| Particles >14µm   | ASTM D7647   | >80        | <b>▲ 256</b>      | ---      | ---      |
| Particles >21µm   | ASTM D7647   | >20        | <b>▲ 36</b>       | ---      | ---      |
| Particles >38µm   | ASTM D7647   | >4         | <b>2</b>          | ---      | ---      |
| Particles >71µm   | ASTM D7647   | >3         | <b>0</b>          | ---      | ---      |
| Oil Cleanliness   | ISO 4406 (c) | >--/17/13  | <b>▲ 22/20/15</b> | ---      | ---      |

| FLUID DEGRADATION | method   | limit/base     | current     | history1 | history2 |
|-------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 0.4 | <b>0.64</b> | ---      | ---      |

# OIL ANALYSIS REPORT



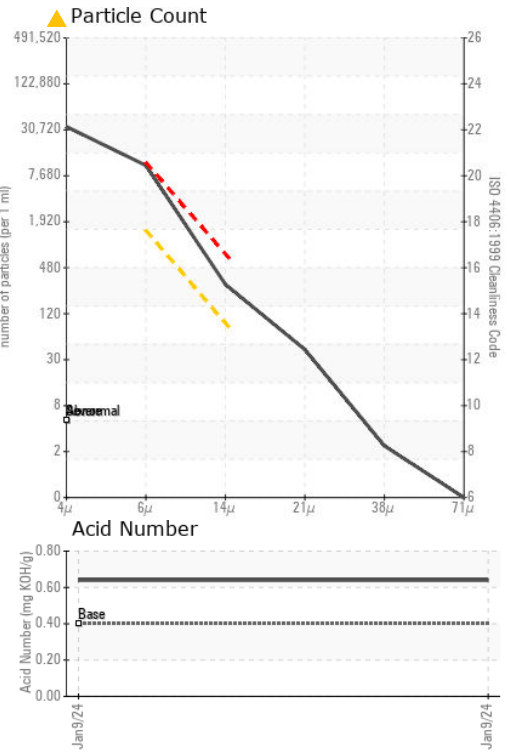
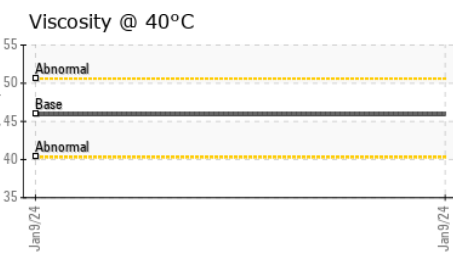
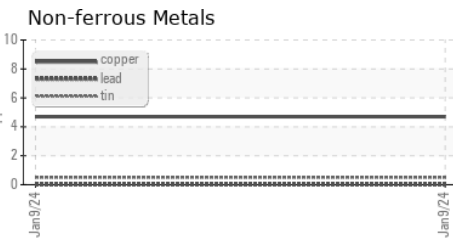
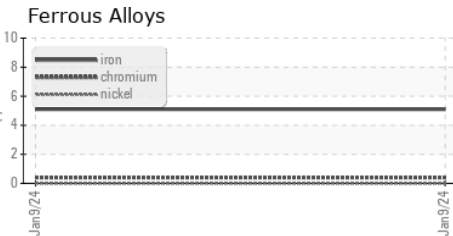
| PARAMETER        | VISUAL | method  | limit/base | current      | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal      | scalar | *Visual | NONE       | <b>NONE</b>  | ---      | ---      |
| Yellow Metal     | scalar | *Visual | NONE       | <b>NONE</b>  | ---      | ---      |
| Precipitate      | scalar | *Visual | NONE       | <b>NONE</b>  | ---      | ---      |
| Silt             | scalar | *Visual | NONE       | <b>NONE</b>  | ---      | ---      |
| Debris           | scalar | *Visual | NONE       | <b>NONE</b>  | ---      | ---      |
| Sand/Dirt        | scalar | *Visual | NONE       | <b>NONE</b>  | ---      | ---      |
| Appearance       | scalar | *Visual | NORML      | <b>NORML</b> | ---      | ---      |
| Odor             | scalar | *Visual | NORML      | <b>NORML</b> | ---      | ---      |
| Emulsified Water | scalar | *Visual | >0.05      | <b>NEG</b>   | ---      | ---      |
| Free Water       | scalar | *Visual |            | <b>NEG</b>   | ---      | ---      |

| FLUID PROPERTIES | method | limit/base   | current     | history1 | history2 |
|------------------|--------|--------------|-------------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | <b>45.9</b> | ---      | ---      |

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

|        |  |          |          |
|--------|--|----------|----------|
| Color  |  | no image | no image |
| Bottom |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA018212 **Received** : 18 Jul 2024  
**Lab Number** : 06240334 **Tested** : 19 Jul 2024  
**Unique Number** : 11129168 **Diagnosed** : 20 Jul 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**SCHUTZ CONTAINER**  
 13170 MARLAY AVE  
 FONTANA, CA  
 US 92337  
 Contact: JOEL WIRTH  
 joel.wirth@shuetz.net

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)