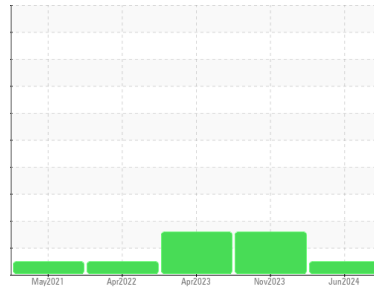




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**7200996 (S/N 1596)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) FG-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>KCPA018123</b>  | KCPA007268  | KCP53516    |
| Sample Date        | Client Info |             |            | <b>13 Jun 2024</b> | 06 Nov 2023 | 20 Apr 2023 |
| Machine Age        | hrs         | Client Info |            | <b>22472</b>       | 18586       | 15891       |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 2200        |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ABNORMAL    | ATTENTION   |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>1</b>     | 0        | 2        |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | 0        |
| Nickel      | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0        | 0        |
| Titanium    | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>&lt;1</b> | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>6</b>     | 7        | 6        |
| Lead        | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>7</b>     | 4        | 5        |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | <1       |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |

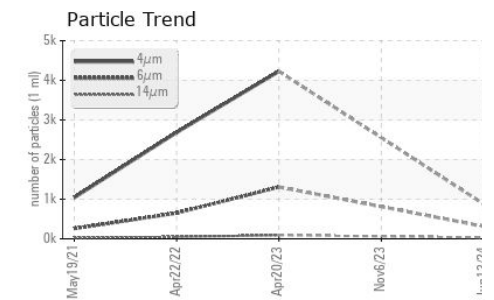
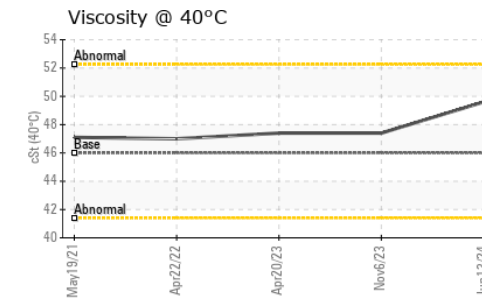
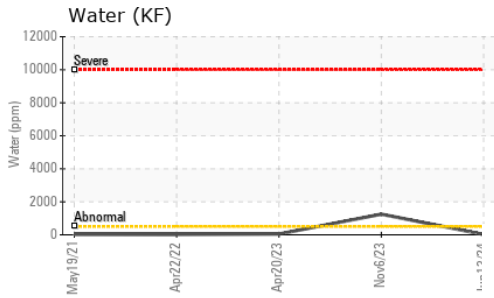
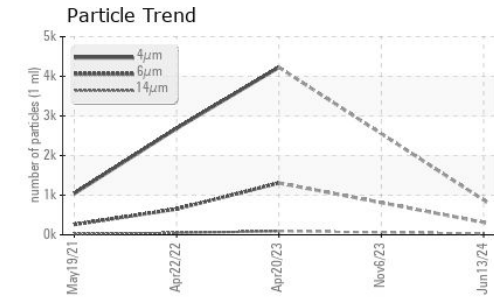
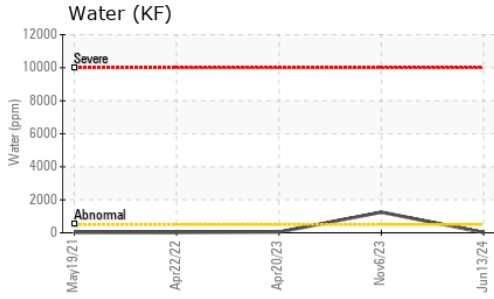
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m |            | <b>1</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m |            | <b>2</b>     | 0        | <1       |
| Calcium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Phosphorus | ppm | ASTM D5185m | 500        | <b>265</b>   | 211      | 380      |
| Zinc       | ppm | ASTM D5185m |            | <b>219</b>   | 158      | 224      |
| Sulfur     | ppm | ASTM D5185m |            | <b>1369</b>  | 3652     | 1566     |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | 0        | 0        |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | 0        | 2        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.002</b> | ▲ 0.125  | 0.004    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>21</b>    | ▲ 1250   | 48.8     |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2   |
|-------------------|--|--------------|------------|-----------------|----------|------------|
| Particles >4µm    |  | ASTM D7647   |            | <b>879</b>      | ---      | 4226       |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>314</b>      | ---      | ● 1308     |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>31</b>       | ---      | ● 90       |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>7</b>        | ---      | ● 22       |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>1</b>        | ---      | 1          |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | ---      | 0          |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>17/15/12</b> | ---      | ● 19/18/14 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.5        | <b>0.71</b> | 0.60     | 1.10     |

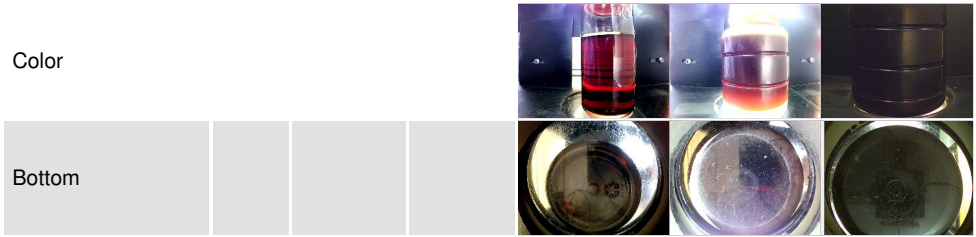
# OIL ANALYSIS REPORT



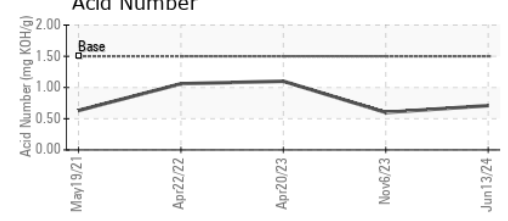
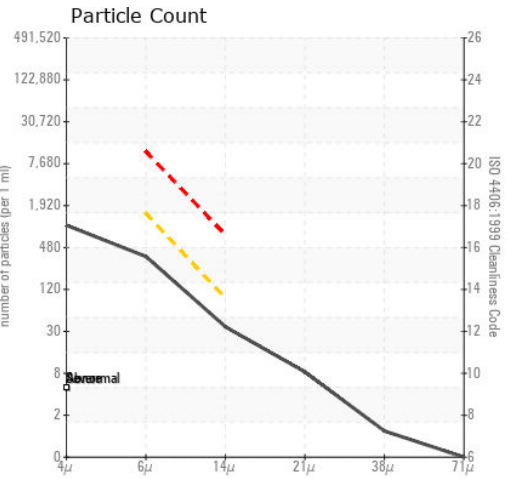
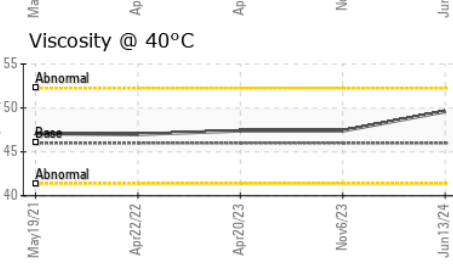
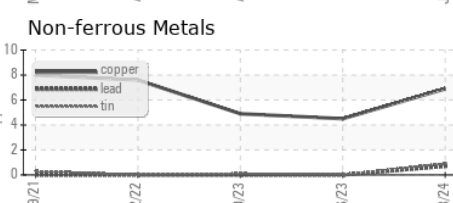
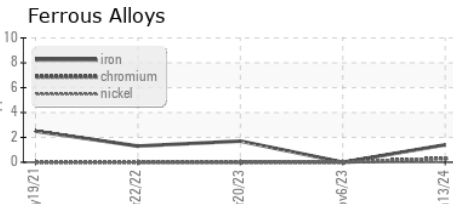
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | HEAVY    |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| 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      | 49.6     | 47.4     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA018123  
**Lab Number** : 06217317  
**Unique Number** : 11090181  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )  
**Received** : 21 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Don Baldrige

**IPPOLITO INTERNATIONAL**  
 1155 MERRILL ST  
 SALINAS, CA  
 US 93901  
 Contact: FERNANDO OROZCO  
 fernando.orozco@qvproduce.com

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)