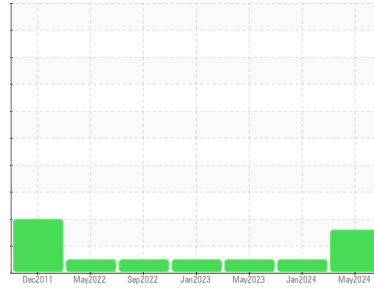




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
3855611 (S/N 1029)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) FG-460 (--- GAL)

DIAGNOSIS

Recommendation
 We recommend you service the filters on this component. 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 | | | KC128251 | KC122650 | KC101062 |
| Sample Date | Client Info | | | 07 May 2024 | 29 Jan 2024 | 16 May 2023 |
| Machine Age | hrs | Client Info | | 41968 | 39588 | 33438 |
| Oil Age | hrs | Client Info | | 4653 | 0 | 1268 |
| Oil Changed | Client Info | | | Not Chngd | N/A | Not Chngd |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >50 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | 0 | 2 |
| Lead | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | <1 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

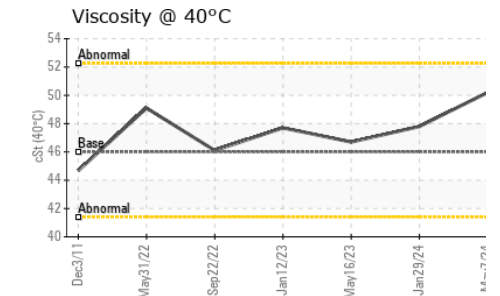
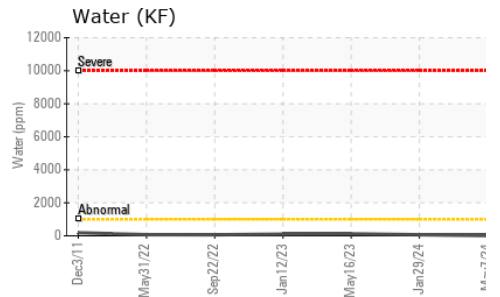
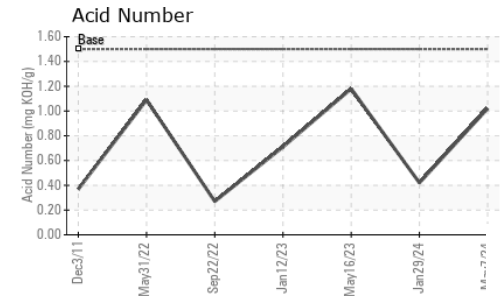
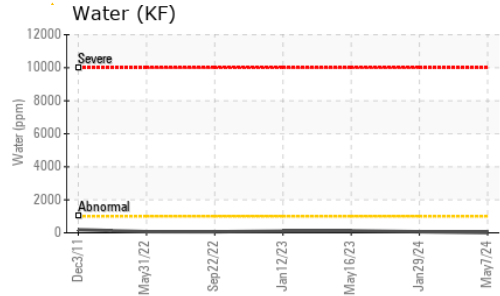
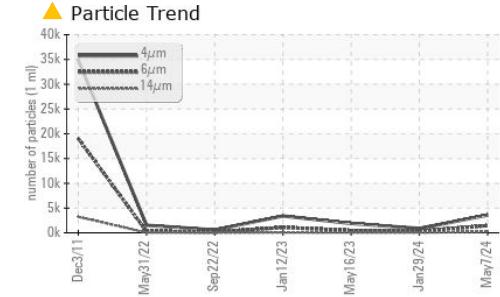
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Calcium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | 500 | 384 | 362 | 299 |
| Zinc | ppm | ASTM D5185m | | 1 | 0 | 68 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 0 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | 1 | 2 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 2 | 1 |
| Water | % | ASTM D6304 | >0.1 | 0.001 | 0.006 | 0.012 |
| ppm Water | ppm | ASTM D6304 | >1000 | 10 | 65 | 122.5 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | | 3578 | 892 | 1885 |
| Particles >6µm | | ASTM D7647 | >1300 | 1449 | 309 | 448 |
| Particles >14µm | | ASTM D7647 | >80 | 196 | 40 | 36 |
| Particles >21µm | | ASTM D7647 | >20 | 63 | 15 | 8 |
| Particles >38µm | | ASTM D7647 | >4 | 2 | 1 | 2 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 1 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | 19/18/15 | 17/15/12 | 18/16/12 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.5 | 1.02 | 0.42 | 1.18 |

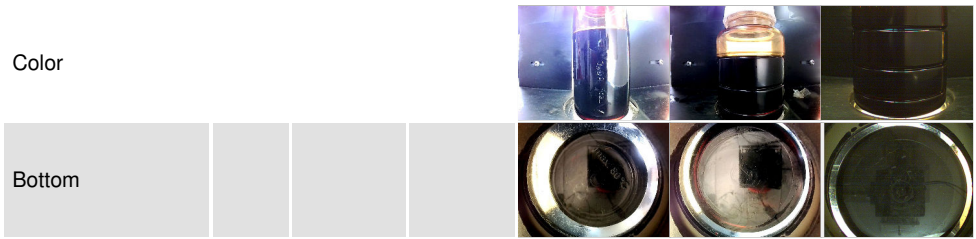
OIL ANALYSIS REPORT



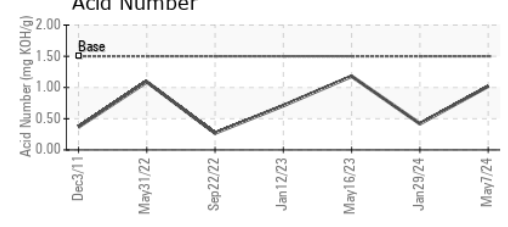
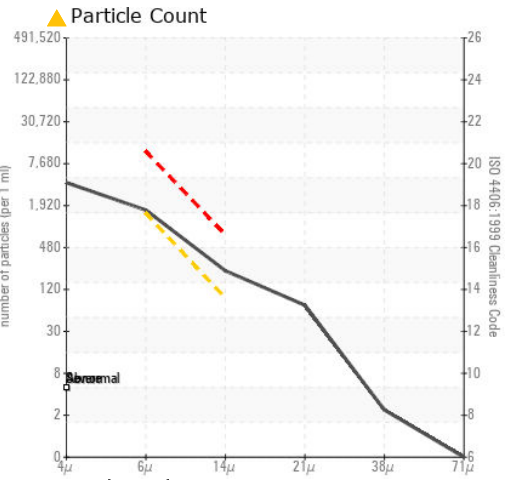
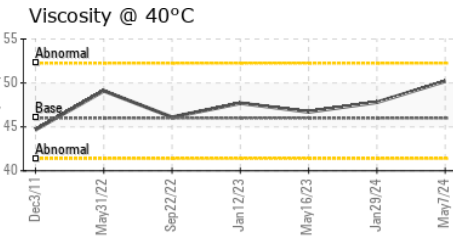
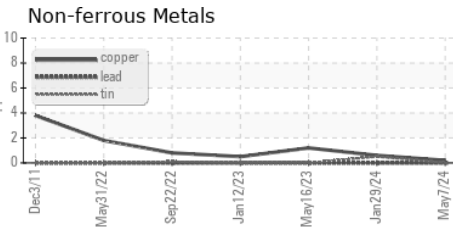
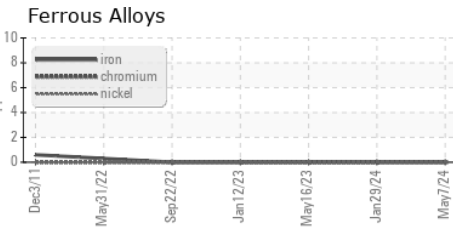
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 50.2 | 47.8 | 46.7 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC128251 **Received** : 31 May 2024
Lab Number : 06196681 **Tested** : 03 Jun 2024
Unique Number : 11058804 **Diagnosed** : 03 Jun 2024 - Angela Borella
Test Package : IND 2

CUTRALE CITRUS JUICES
 602 MCKEAN ST
 LAKELAND, FL
 US 33823
 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)