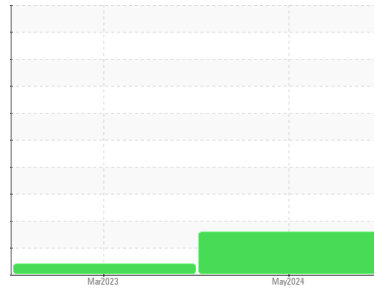




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
KAESER 7942001
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-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 | | | KC106345 | KC100388 | --- |
| Sample Date | Client Info | | | 24 May 2024 | 31 Mar 2023 | --- |
| Machine Age | hrs | Client Info | | 5414 | 3511 | --- |
| Oil Age | hrs | Client Info | | 1903 | 3511 | --- |
| Oil Changed | Client Info | | | Changed | Changed | --- |
| Sample Status | | | | ABNORMAL | ABNORMAL | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|-----------|----------|----------|
| Iron | ppm | ASTM D5185m | >50 | <1 | 1 | --- |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | --- |
| Nickel | ppm | ASTM D5185m | >3 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | >3 | <1 | 0 | --- |
| Silver | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >10 | 3 | 0 | --- |
| Lead | ppm | ASTM D5185m | >10 | <1 | 0 | --- |
| Copper | ppm | ASTM D5185m | >50 | 11 | 9 | --- |
| Tin | ppm | ASTM D5185m | >10 | <1 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | --- |

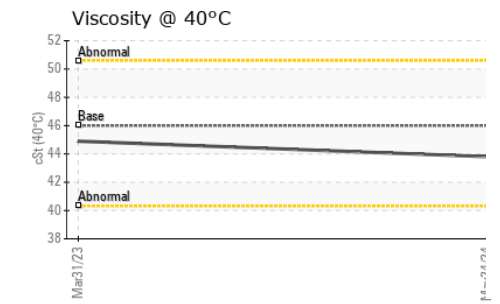
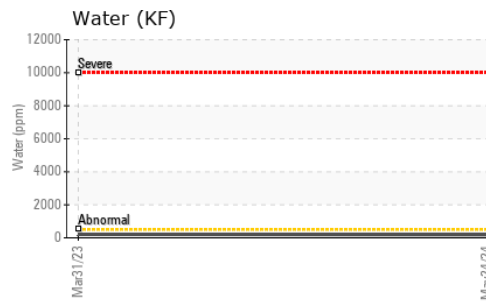
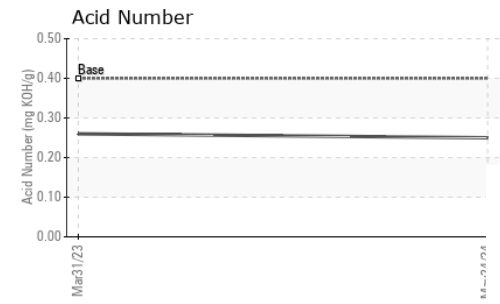
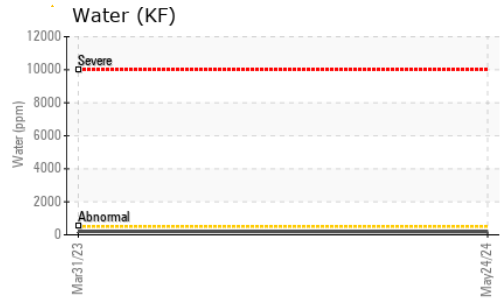
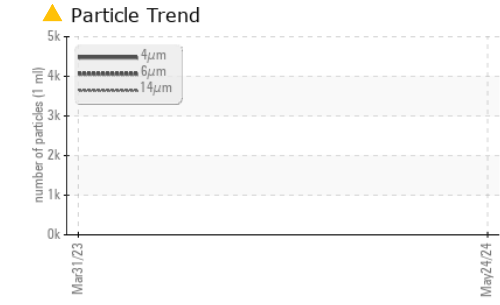
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|-----------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | --- |
| Barium | ppm | ASTM D5185m | 90 | 1 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | <1 | <1 | --- |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185m | 90 | 24 | 32 | --- |
| Calcium | ppm | ASTM D5185m | 2 | 0 | 0 | --- |
| Phosphorus | ppm | ASTM D5185m | | 0 | 6 | --- |
| Zinc | ppm | ASTM D5185m | | 27 | 3 | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 2 | <1 | --- |
| Sodium | ppm | ASTM D5185m | | 13 | 10 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 5 | 3 | --- |
| Water | % | ASTM D6304 | >0.05 | 0.018 | 0.020 | --- |
| ppm Water | ppm | ASTM D6304 | >500 | 187 | 208.9 | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm | | ASTM D7647 | | 4547 | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 1899 | --- | --- |
| Particles >14µm | | ASTM D7647 | >80 | ▲ 186 | --- | --- |
| Particles >21µm | | ASTM D7647 | >20 | ▲ 39 | --- | --- |
| Particles >38µm | | ASTM D7647 | >4 | 1 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ 19/18/15 | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.25 | 0.26 | --- |

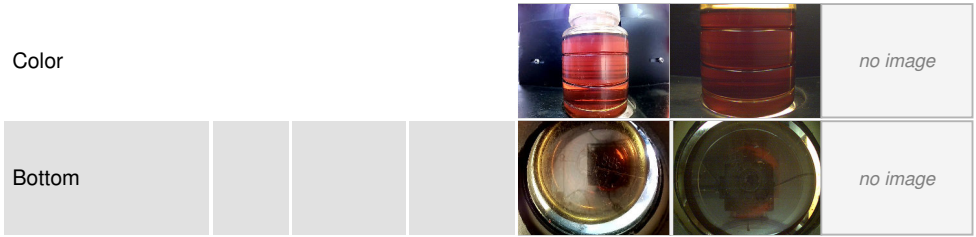
OIL ANALYSIS REPORT



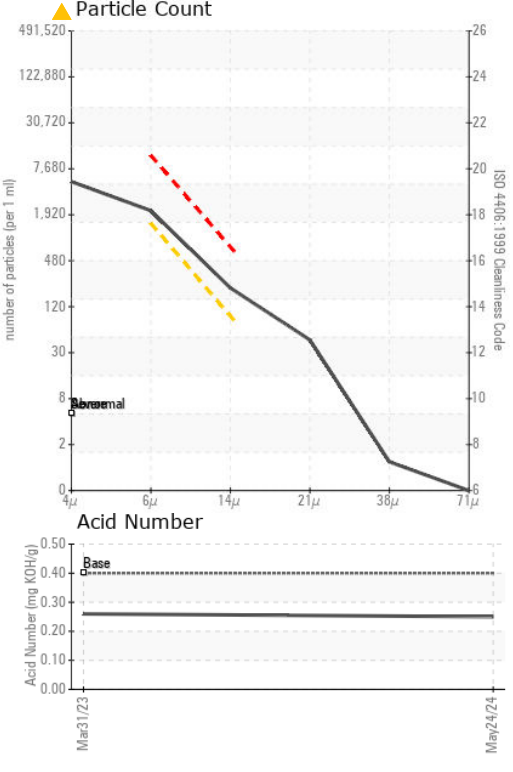
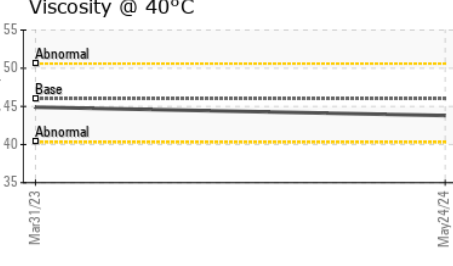
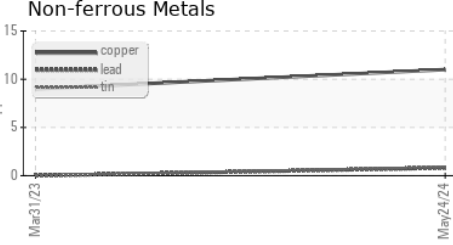
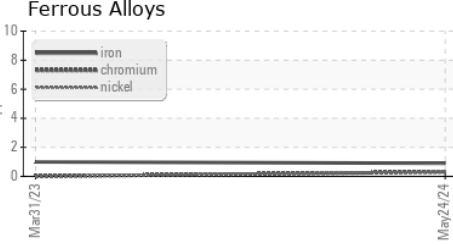
| PARAMETER | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | ▲ MODER |
| 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 | 46 | 43.8 | 44.9 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC106345
Lab Number : 06217308
Unique Number : 11090172
Test Package : IND 2

Received : 21 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Don Baldrige

HARBOR DISTRIBUTORS INC
 3751 62ND AVE N
 PINELLAS PARK, FL
 US 33781
 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)