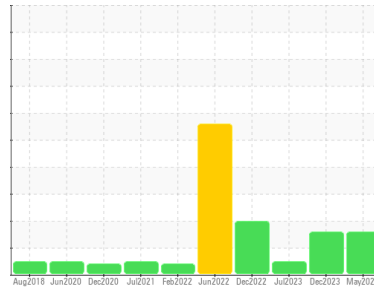




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER CSD 125 6116239 (S/N 3121)
 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 | | | KCPA012613 | KC125015 | KCPA004966 |
| Sample Date | Client Info | | | 02 May 2024 | 05 Dec 2023 | 25 Jul 2023 |
| Machine Age | hrs | Client Info | | 22757 | 20095 | 19930 |
| Oil Age | hrs | Client Info | | 2827 | 0 | 0 |
| Oil Changed | Client Info | | | Changed | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >50 | 0 | 0 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 2 | 1 | 0 |
| Lead | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 14 | 5 | 9 |
| Tin | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | 1 | 13 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 90 | 5 | 77 | 0 |
| Calcium | ppm | ASTM D5185m | 2 | 4 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 7 | 1 | 4 |
| Zinc | ppm | ASTM D5185m | | 12 | 2 | 0 |
| Sulfur | ppm | ASTM D5185m | | 20221 | 18601 | 21394 |

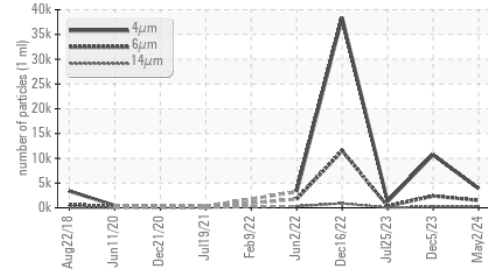
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | <1 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | 0 | 15 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 7 | 0 |
| Water | % | ASTM D6304 | >0.05 | 0.008 | 0.017 | 0.006 |
| ppm Water | ppm | ASTM D6304 | >500 | 90 | 176 | 65.0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|------------|----------|
| Particles >4µm | | ASTM D7647 | | 3884 | 10743 | 1268 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 1482 | ● 2392 | 338 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ 218 | ▲ 201 | 31 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ 73 | ▲ 52 | 10 |
| Particles >38µm | | ASTM D7647 | >4 | 1 | 2 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ 19/18/15 | ▲ 21/18/15 | 17/16/12 |

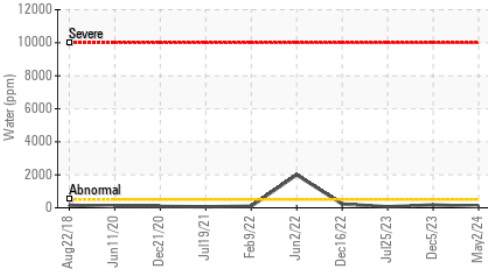
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.49 | 0.37 | 0.49 |

OIL ANALYSIS REPORT

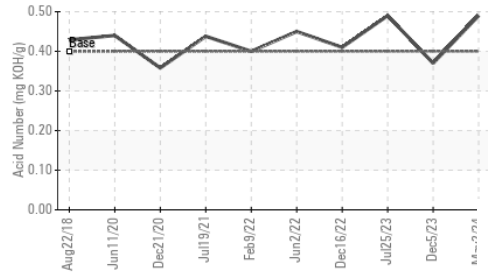
Particle Trend



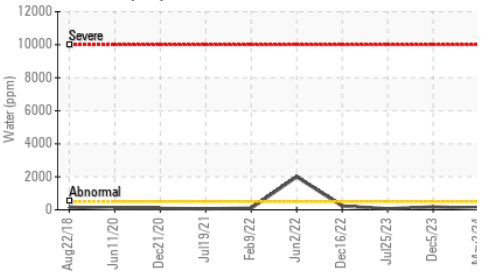
Water (KF)



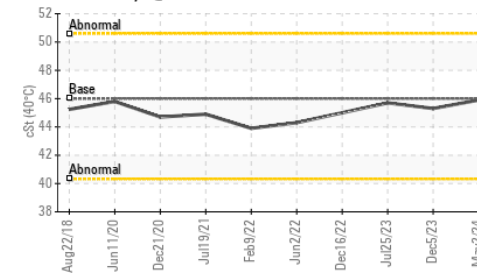
Acid Number



Water (KF)



Viscosity @ 40°C

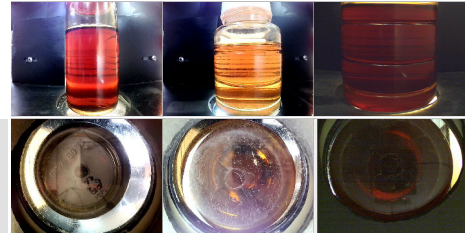


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 45.9 | 45.3 | 45.7 |

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

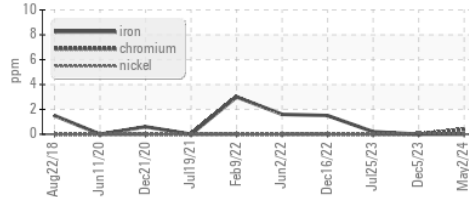
Color



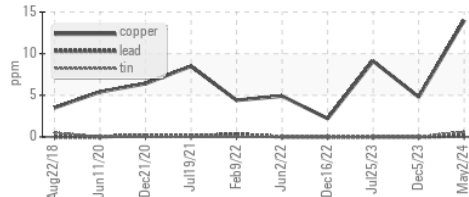
Bottom

GRAPHS

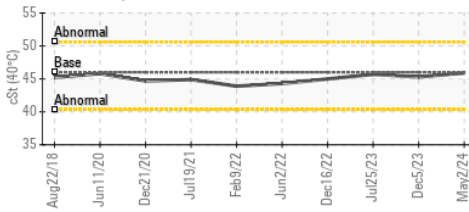
Ferrous Alloys



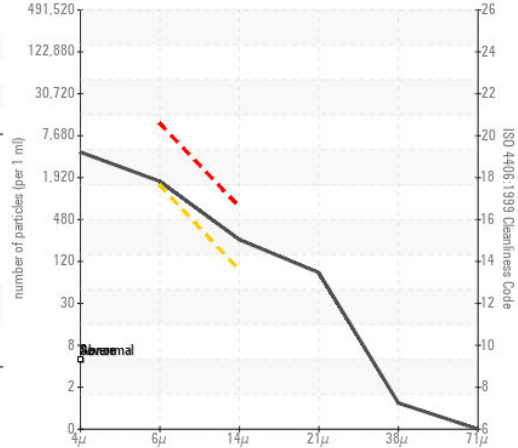
Non-ferrous Metals



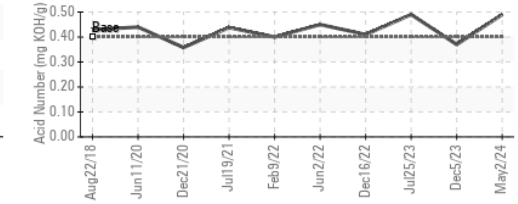
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA012613 **Received** : 13 May 2024
Lab Number : 06177702 **Tested** : 14 May 2024
Unique Number : 11023755 **Diagnosed** : 15 May 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

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 US 65101

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