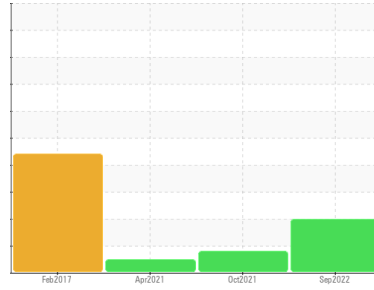
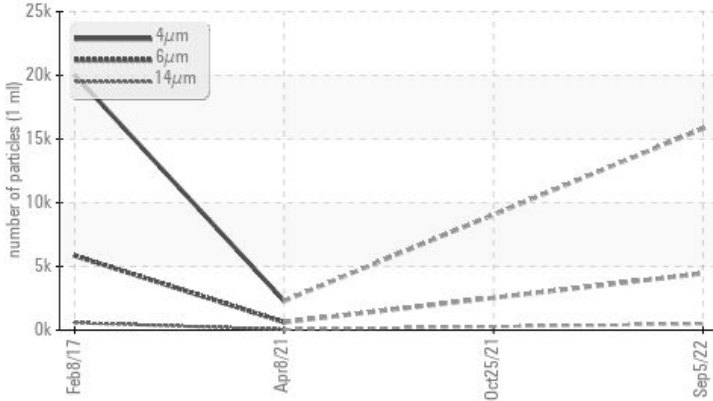


Machine Id
KAESER SX 5 5624703 (S/N 1463)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



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.

PROBLEMATIC TEST RESULTS

| Sample Status | ASTM D7647 | Limit | ABNORMAL | ABNORMAL | NORMAL |
|-----------------|--------------|-----------|------------|----------|--------|
| Particles >6µm | ASTM D7647 | >1300 | ▲ 4449 | --- | 626 |
| Particles >14µm | ASTM D7647 | >80 | ▲ 498 | --- | 53 |
| Particles >21µm | ASTM D7647 | >20 | ▲ 125 | --- | 18 |
| Particles >38µm | ASTM D7647 | >4 | ▲ 8 | --- | 2 |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 21/19/16 | --- | 16/13 |

Customer Id: TUSMEN
Sample No.: KCP37325
Lab Number: 05633653
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|------|---------|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |

HISTORICAL DIAGNOSIS

25 Oct 2021 Diag: Jonathan Hester

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

[view report](#)



08 Apr 2021 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



08 Feb 2017 Diag: Don Baldrige

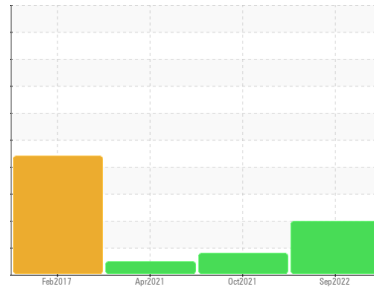
WATER



We advise that you follow stop the unit and the water drain-off procedure for this component. We recommend you service the filters on this component. We recommend an early resample in 500 hours to monitor this condition. All component wear rates are normal. There is a high amount of particulates present in the oil. There is a moderate concentration of water present in the oil. The AN level is acceptable for this fluid.

[view report](#)





Machine Id
KAESER SX 5 5624703 (S/N 1463)

Component
Compressor
Fluid
KAESER SIGMA (OEM) M-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 | history 1 | history 2 |
|---------------|--------|------------|--------------------|-------------|-------------|
| Sample Number | | | KCP37325 | KCP36228 | KCP32614 |
| Sample Date | | | 05 Sep 2022 | 25 Oct 2021 | 08 Apr 2021 |
| Machine Age | hrs | | 55399 | 47846 | 43222 |
| Oil Age | hrs | | 4000 | 7000 | 3210 |
| Oil Changed | | | Changed | Changed | Changed |
| Sample Status | | | ABNORMAL | ABNORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history 1 | history 2 |
|----------|--------|-----------------|--------------|-----------|-----------|
| Iron | ppm | ASTM D5185m >50 | 0 | 1 | 0 |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >3 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m >3 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m >2 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | <1 | <1 | 0 |
| Lead | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m >50 | 9 | 8 | 3 |
| Tin | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | --- | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history 1 | history 2 |
|------------|--------|-------------------|--------------|-----------|-----------|
| Boron | ppm | ASTM D5185m 0 | 0 | <1 | 0 |
| Barium | ppm | ASTM D5185m 90 | 5 | 6 | 0 |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m 100 | 4 | 24 | 0 |
| Calcium | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m 0 | 3 | 2 | <1 |
| Zinc | ppm | ASTM D5185m 0 | 4 | 3 | 4 |
| Sulfur | ppm | ASTM D5185m 23500 | 18725 | 15669 | 16819 |

CONTAMINANTS

| | method | limit/base | current | history 1 | history 2 |
|-----------|--------|------------------|--------------|-----------|-----------|
| Silicon | ppm | ASTM D5185m >25 | <1 | 2 | 2 |
| Sodium | ppm | ASTM D5185m | 0 | 5 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 1 | 2 | 0 |
| Water | % | ASTM D6304 >0.05 | 0.024 | 0.023 | 0.009 |
| ppm Water | ppm | ASTM D6304 >500 | 249.7 | 236.4 | 98.0 |

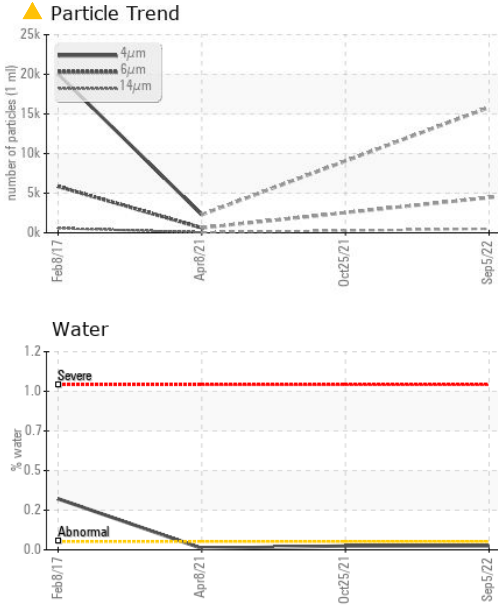
FLUID CLEANLINESS

| | method | limit/base | current | history 1 | history 2 |
|-----------------|--------------|------------|-------------------|-----------|-----------|
| Particles >4µm | ASTM D7647 | | 15825 | --- | 2289 |
| Particles >6µm | ASTM D7647 | >1300 | ▲ 4449 | --- | 626 |
| Particles >14µm | ASTM D7647 | >80 | ▲ 498 | --- | 53 |
| Particles >21µm | ASTM D7647 | >20 | ▲ 125 | --- | 18 |
| Particles >38µm | ASTM D7647 | >4 | ▲ 8 | --- | 2 |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 21/19/16 | --- | 16/13 |

FLUID DEGRADATION

| | method | limit/base | current | history 1 | history 2 |
|------------------|----------|----------------|-------------|-----------|-----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | 0.40 | 0.426 | 0.421 |

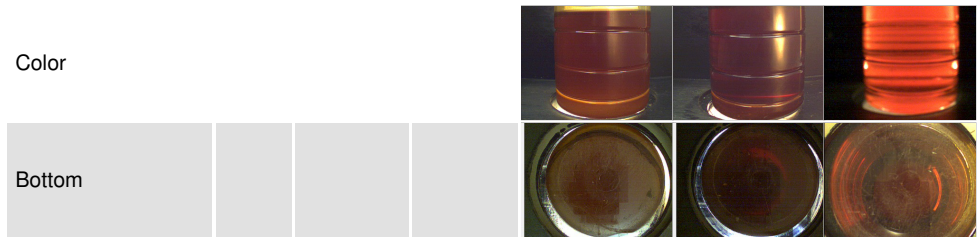
OIL ANALYSIS REPORT



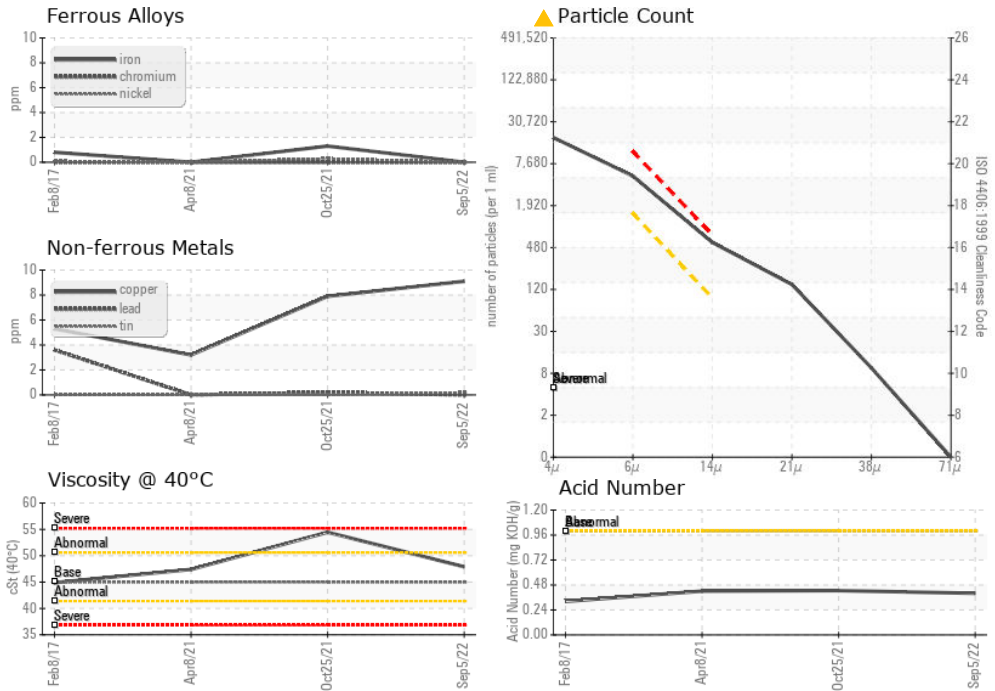
| VISUAL | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|--------------|-----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | LIGHT | ▲ 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 | history 1 | history 2 | |
|------------------|--------|------------|---------|-------------|-----------|------|
| Visc @ 40°C | cSt | ASTM D445 | 45 | 47.9 | ▲ 54.46 | 47.4 |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
|---------------|--------|------------|---------|-----------|-----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP37325 **Received** : 02 Sep 2022
Lab Number : 05633653 **Diagnosed** : 06 Sep 2022
Unique Number : 10118174 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

TUSKER MEDICAL
 155 JEFFERSON DR
 MENLO PARK, CA
 USA 94025
 Contact:

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)

T:
F: