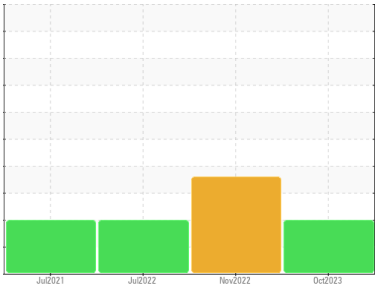
# PROBLEM SUMMARY

Sample Rating Trend

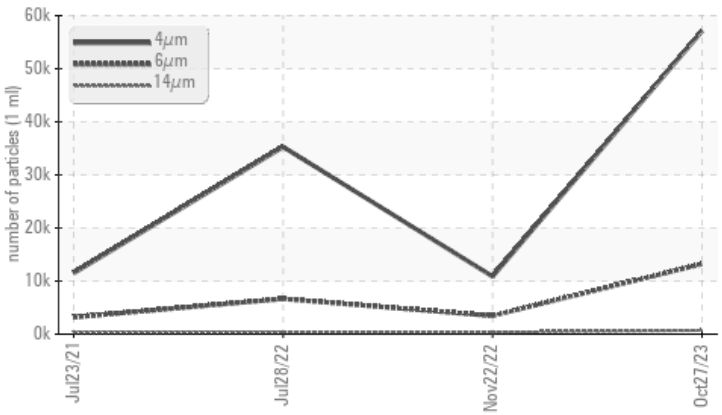



ISO

Machine Id
**7336054 (S/N 1155)**
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- LTR)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend




## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |
|---|---|---|---|---|---|---|
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **13202** | ▲ 3448 | ▲ 6653 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **717** | ▲ 346 | ▲ 386 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **179** | ▲ 116 | ▲ 85 |
| Particles >38µm | | ASTM D7647 | >4 | ▲ **9** | ▲ 7 | ▲ 5 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **23/21/17** | ▲ 21/19/16 | ▲ 22/20/16 |

**Customer Id:** TUCLEE
**Sample No.:** KC06001064
**Lab Number:** 06001064
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Don Baldridge +1
don.b505@comcast.net

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

**22 Nov 2022 Diag: Doug Bogart**

**WATER**

We advise that you stop the unit and follow the water drain-off procedure for 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 light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**view report**

**28 Jul 2022 Diag: Jonathan Hester**

**ISO**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**view report**

**23 Jul 2021 Diag: Jonathan Hester**

**ISO**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**view report**

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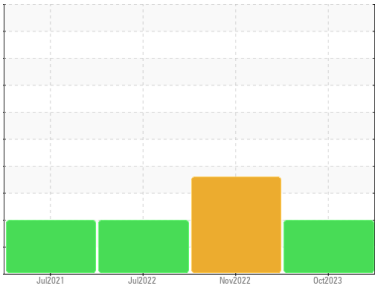
# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## 7336054 (S/N 1155)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- LTR)**

## DIAGNOSIS

**▲ Recommendation**
No corrective action is recommended at this time. The 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 | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **KC06001064** | KC104171 | KC97509 |
| Sample Date | | Client Info | | **27 Oct 2023** | 22 Nov 2022 | 28 Jul 2022 |
| Machine Age | hrs | Client Info | | **3726** | 2017 | 1725 |
| Oil Age | hrs | Client Info | | **0** | 292 | 0 |
| Oil Changed | | Client Info | | **N/A** | Not Changd | Changed |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | <1 | <1 |
| 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** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | <1 | 1 |
| Lead | ppm | ASTM D5185m | >10 | **0** | <1 | <1 |
| Copper | ppm | ASTM D5185m | >50 | **8** | 2 | 4 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 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 | 90 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | **24** | 64 | 46 |
| Calcium | ppm | ASTM D5185m | 2 | **0** | <1 | <1 |
| Phosphorus | ppm | ASTM D5185m | | **0** | 8 | 6 |
| Zinc | ppm | ASTM D5185m | | **83** | 24 | 42 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **0** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **14** | 20 | 15 |
| Potassium | ppm | ASTM D5185m | >20 | **7** | 14 | 20 |
| Water | % | ASTM D6304 | >0.05 | **0.040** | ▲ 0.051 | 0.029 |
| ppm Water | ppm | ASTM D6304 | >500 | **408.2** | ▲ 518.9 | 292.8 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **57107** | 10872 | 35279 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **13202** | ▲ 3448 | ▲ 6653 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **717** | ▲ 346 | ▲ 386 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **179** | ▲ 116 | ▲ 85 |
| Particles >38µm | | ASTM D7647 | >4 | ▲ **9** | ▲ 7 | ▲ 5 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 1 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **23/21/17** | ▲ 21/19/16 | ▲ 22/20/16 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | **0.31** | 0.34 | 0.28 |

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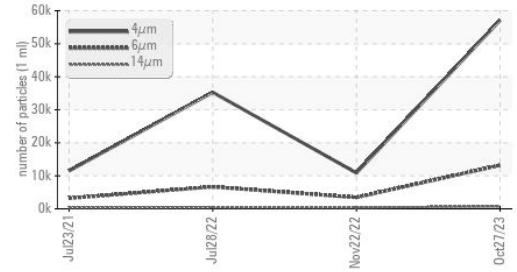
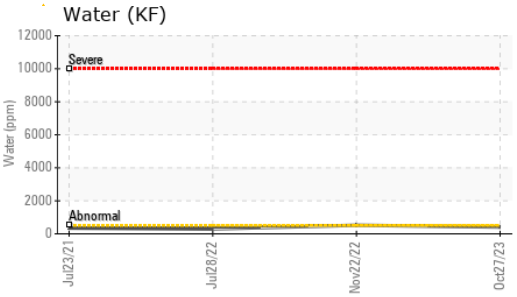
# OIL ANALYSIS REPORT

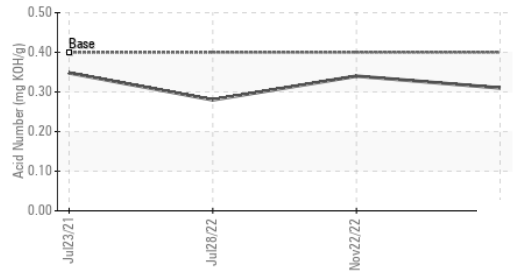
Particle Trend



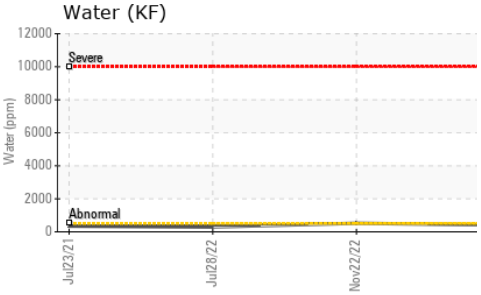

Water (KF)



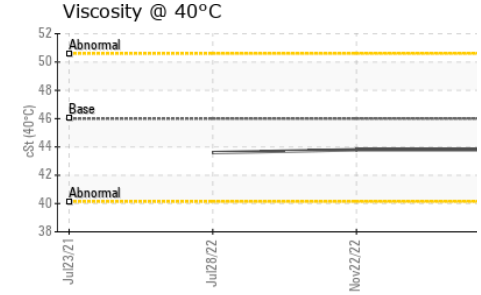

Acid Number




Water (KF)



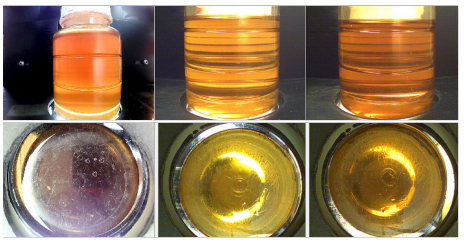

Viscosity @ 40°C




| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **LIGHT** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **LIGHT** | VLITE | VLITE |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

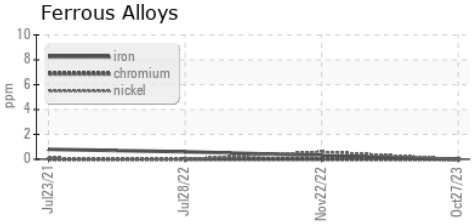
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **43.8** | 43.8 | 43.6 |

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

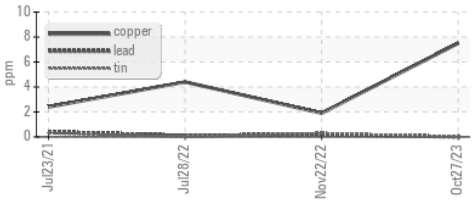


## GRAPHS

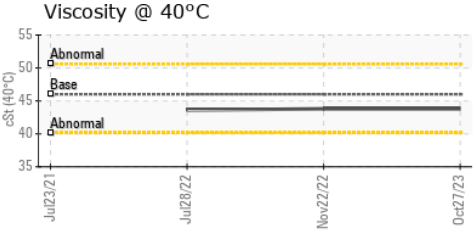
Ferrous Alloys



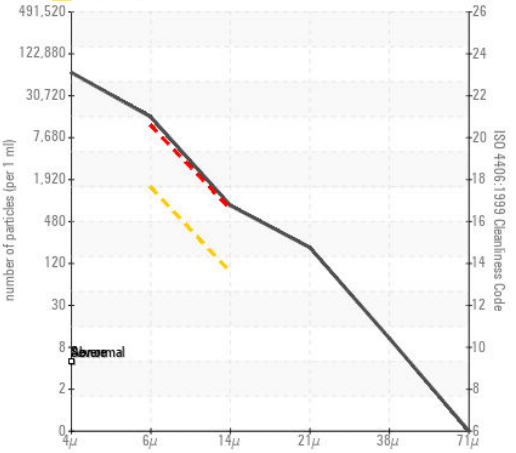

Non-ferrous Metals



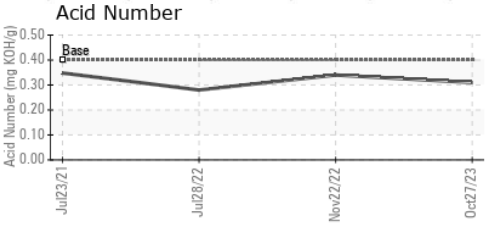

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KC06001064
**Lab Number** : 06001064
**Unique Number** : 10729424
**Test Package** : IND 2

**Received** : 07 Nov 2023
**Diagnosed** : 09 Nov 2023
**Diagnostician** : Don Baldridge

**TUCKERS MACHINERY**
400 CR 468
LEESBURG, FL
US 34748
Contact: Service Manager

T:
F:

*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)*