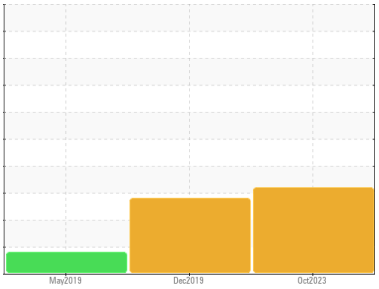
# PROBLEM SUMMARY

Sample Rating Trend

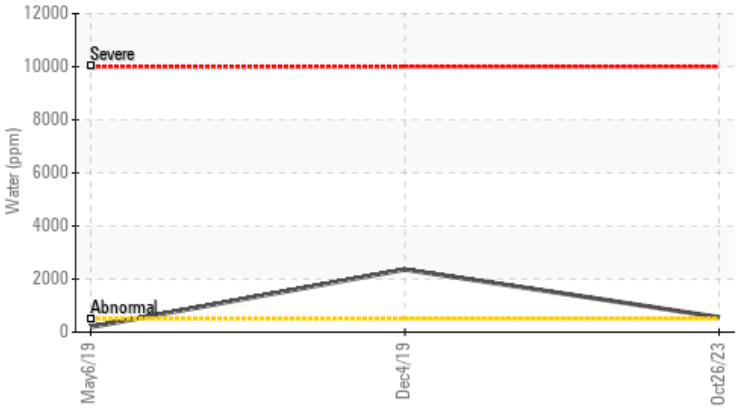



**WATER**

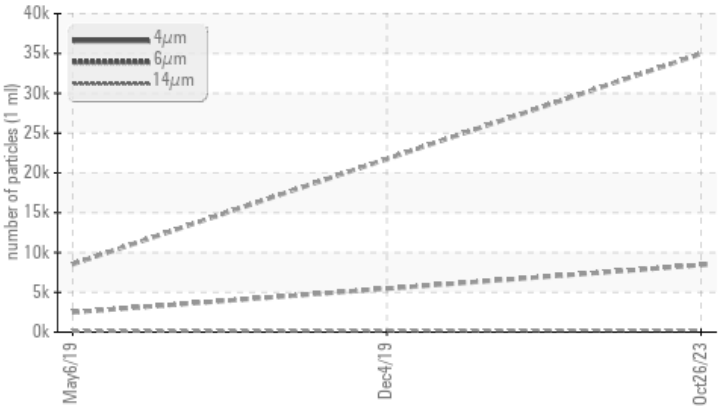
Machine Id
## KAESER ASD 40 6636306 (S/N 1049)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Water (KF)




▲ Particle Trend




## RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | **ABNORMAL** | ABNORMAL | ATTENTION |
|---|---|---|---|---|---|---|
| Water | % | ASTM D6304 | >0.05 | ▲ **0.056** | ▲ 0.236 | 0.019 |
| ppm Water | ppm | ASTM D6304 | >500 | ▲ **562.2** | ▲ 2360 | 190 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **8431** | --- | ▲ 2496 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **265** | --- | ▲ 111 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **46** | --- | 20 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **22/20/15** | --- | ▲ 18/14 |

**Customer Id:** CANGAI
**Sample No.:** KC05994388
**Lab Number:** 05994388
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
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angela.borella@wearcheckusa.com

*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

**04 Dec 2019 Diag: Jonathan Hester**

**WATER**

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. 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. There is a light concentration of water 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**

**06 May 2019 Diag: Don Baldridge**

**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 moderate 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**

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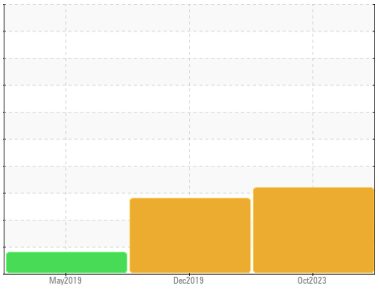
# OIL ANALYSIS REPORT

Sample Rating Trend




**WATER**

Machine Id
## KAESER ASD 40 6636306 (S/N 1049)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**
The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

**Wear**
All component wear rates are normal.

**Contamination**
There is a high amount of particulates present in the oil. There is a trace of moisture present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **KC05994388** | KC76282 | KC04719099 |
| Sample Date | | Client Info | | **26 Oct 2023** | 04 Dec 2019 | 06 May 2019 |
| Machine Age | hrs | Client Info | | **12500** | 2130 | 1006 |
| Oil Age | hrs | Client Info | | **0** | 1124 | 1006 |
| Oil Changed | | Client Info | | **N/A** | Changed | Changed |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ATTENTION |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | <1 | 1 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | **0** | 0 | <1 |
| 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 | **4** | 1 | 1 |
| 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 | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Barium | ppm | ASTM D5185m | 90 | **22** | 5 | 31 |
| Molybdenum | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | **24** | 53 | 74 |
| Calcium | ppm | ASTM D5185m | 2 | **0** | 0 | 3 |
| Phosphorus | ppm | ASTM D5185m | | **74** | 7 | 2 |
| Zinc | ppm | ASTM D5185m | | **37** | 0 | 4 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **0** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **24** | 10 | 12 |
| Potassium | ppm | ASTM D5185m | >20 | **1** | 6 | 5 |
| Water | % | ASTM D6304 | >0.05 | ▲ **0.056** | ▲ 0.236 | 0.019 |
| ppm Water | ppm | ASTM D6304 | >500 | ▲ **562.2** | ▲ 2360 | 190 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **34965** | --- | 8538 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **8431** | --- | ▲ 2496 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **265** | --- | ▲ 111 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **46** | --- | 20 |
| Particles >38µm | | ASTM D7647 | >4 | **1** | --- | 1 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | --- | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **22/20/15** | --- | ▲ 18/14 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | **0.35** | 0.346 | 0.379 |

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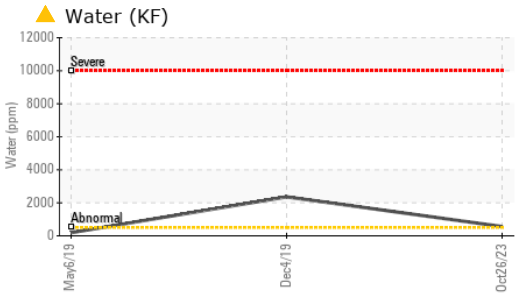
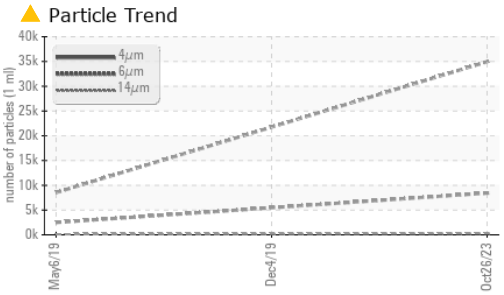
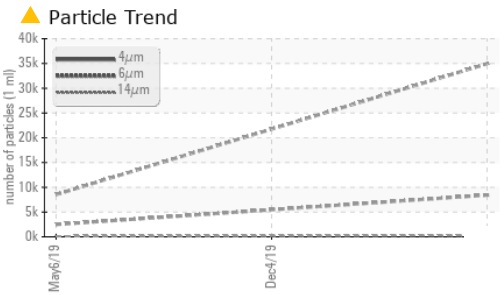
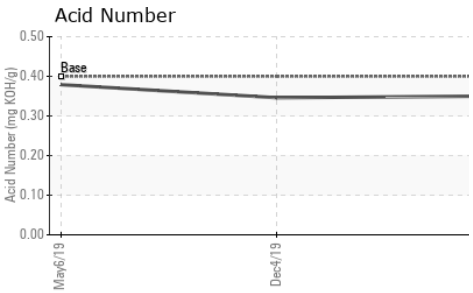
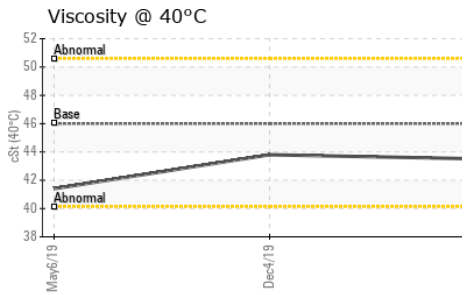
# OIL ANALYSIS REPORT



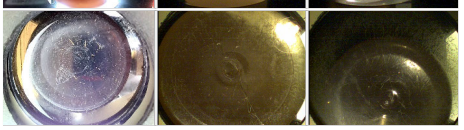



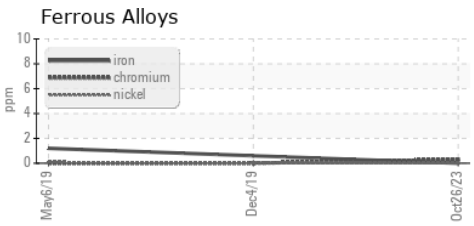



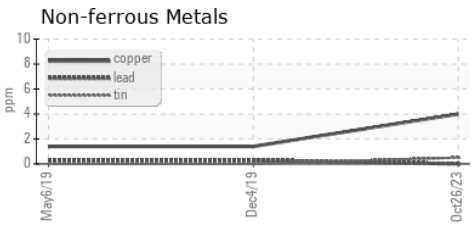

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | VLITE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **LIGHT** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **LIGHT** | ▲ MODER | VLITE |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | **NORML** | ▲ HAZY | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | **NEG** | 0.2% | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

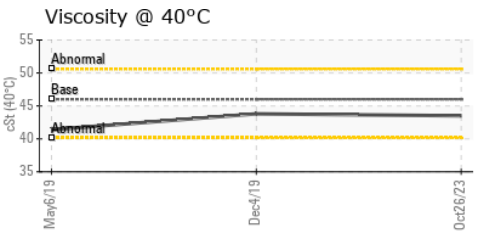
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **43.5** | 43.8 | 41.4 |

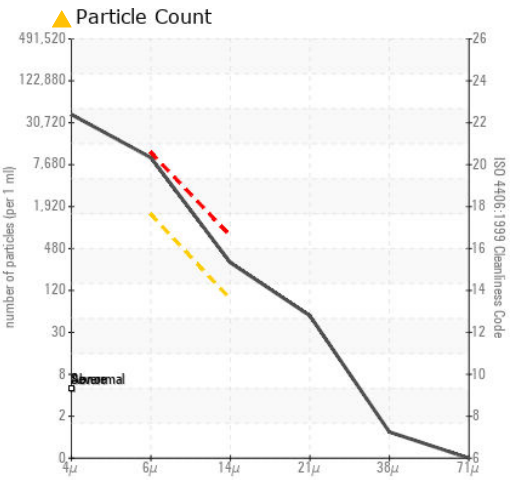
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

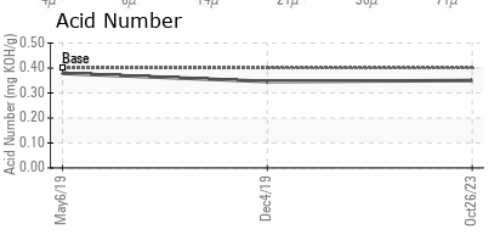
## GRAPHS




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KC05994388
**Lab Number** : 05994388
**Unique Number** : 10722748
**Test Package** : IND 2

**Received** : 31 Oct 2023
**Diagnosed** : 01 Nov 2023
**Diagnostician** : Angela Borella

Certificate L2367

*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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