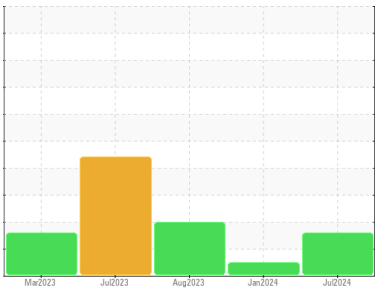
KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## KAESER ASD 40T 6587878 (S/N 1070)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) M-460 (--- LTR)**

## 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 moderate 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 | | **KCPA014354** | KCPA007385 | KCP37072 |
| Sample Date | | Client Info | | **01 Jul 2024** | 25 Jan 2024 | 29 Aug 2023 |
| Machine Age | hrs | Client Info | | **20482** | 17955 | 15658 |
| Oil Age | hrs | Client Info | | **2527** | 0 | 1000 |
| Oil Changed | | Client Info | | **Changed** | N/A | Not Changd |
| Sample Status | | | | **ATTENTION** | NORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **23** | <1 | 8 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | 0 | 3 |
| Lead | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **8** | 6 | 4 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | 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** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | **<1** | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 100 | **1** | 0 | 18 |
| Calcium | ppm | ASTM D5185m | 0 | **2** | 0 | 3 |
| Phosphorus | ppm | ASTM D5185m | 0 | **8** | 4 | 2 |
| Zinc | ppm | ASTM D5185m | 0 | **<1** | 0 | 54 |
| Sulfur | ppm | ASTM D5185m | 23500 | **17809** | 13558 | 20286 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **<1** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **3** | <1 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 0 | 5 |
| Water | % | ASTM D6304 | >0.05 | **0.012** | 0.008 | ▲ 0.146 |
| ppm Water | ppm | ASTM D6304 | >500 | **127** | 89 | ▲ 1464 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **4562** | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | **1394** | --- | --- |
| Particles >14µm | | ASTM D7647 | >80 | **116** | --- | --- |
| Particles >21µm | | ASTM D7647 | >20 | **26** | --- | --- |
| Particles >38µm | | ASTM D7647 | >4 | **2** | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | **1** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | **19/18/14** | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | **0.58** | 0.53 | 0.39 |

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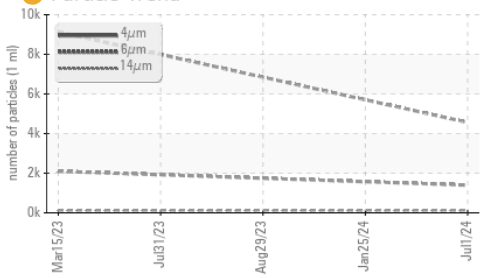
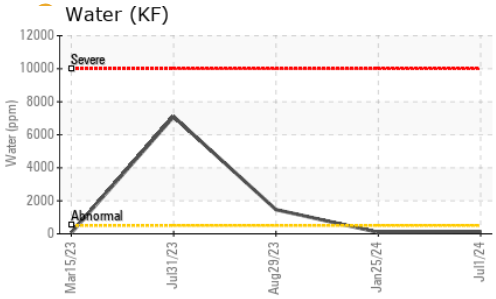
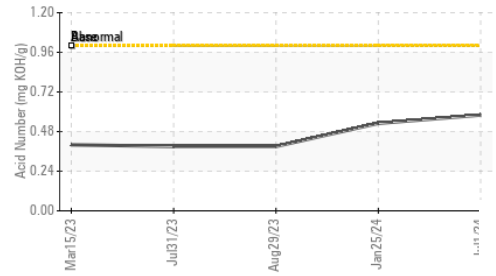
Particle Trend



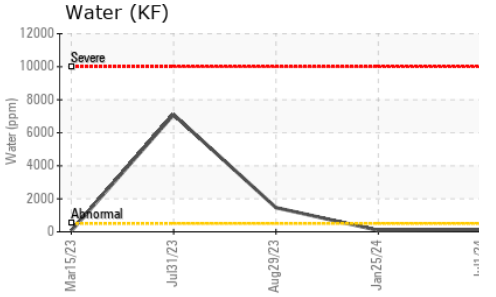

Water (KF)



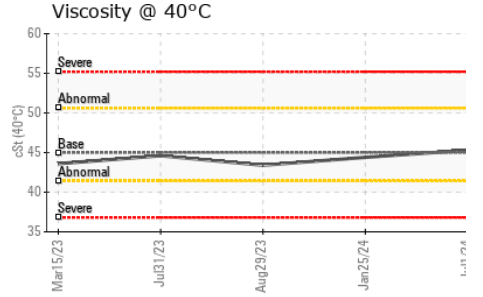

Acid Number




Water (KF)




Viscosity @ 40°C



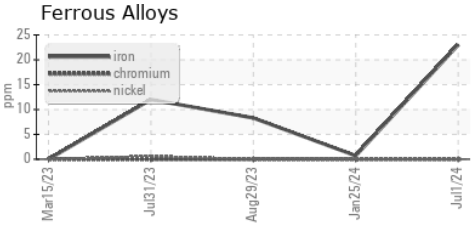

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | MODER | MODER |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **LIGHT** | LIGHT | ▲ MODER |
| 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 | ▲ 0.2% |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 45 | **45.3** | 44.4 | 43.4 |

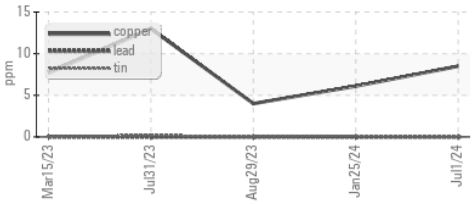
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

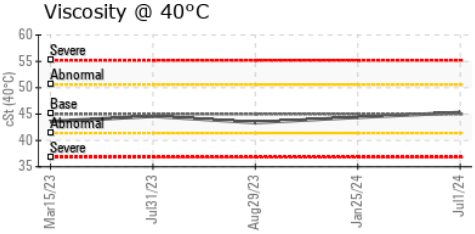
Ferrous Alloys



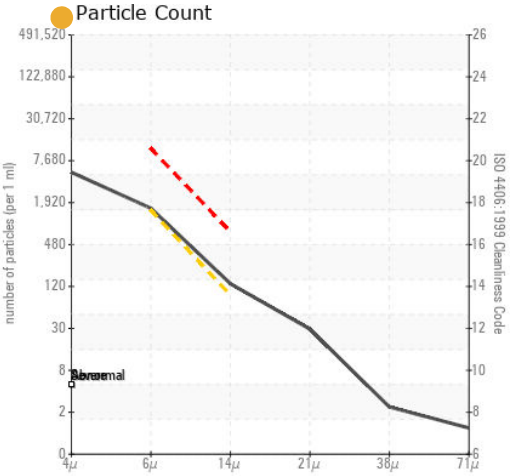

Non-ferrous Metals



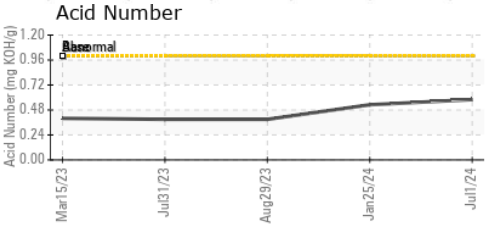

Viscosity @ 40°C




Particle Count




Acid Number




ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KCPA014354
**Lab Number** : 06234908
**Unique Number** : 11123742
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**Received** : 12 Jul 2024
**Tested** : 15 Jul 2024
**Diagnosed** : 15 Jul 2024 - Don Baldridge

*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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