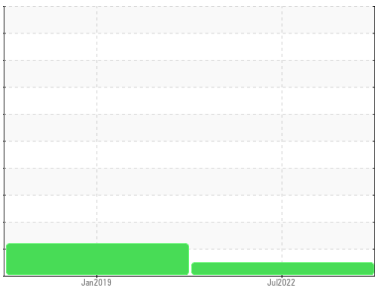
KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## KAESER AS 20T 4680134 (S/N 1097)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-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**
The amount and size of particulates present in the system are acceptable.

**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 | | **KCP49690** | KCP13826 | --- |
| Sample Date | | Client Info | | **22 Jul 2022** | 22 Jan 2019 | --- |
| Machine Age | hrs | Client Info | | **14864** | 9546 | --- |
| Oil Age | hrs | Client Info | | **5000** | 9546 | --- |
| Oil Changed | | Client Info | | **Changed** | Changed | --- |
| Sample Status | | | | **NORMAL** | ABNORMAL | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **<1** | <1 | --- |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | --- |
| Nickel | ppm | ASTM D5185m | >3 | **<1** | <1 | --- |
| Titanium | ppm | ASTM D5185m | >3 | **0** | 0 | --- |
| Silver | ppm | ASTM D5185m | >2 | **<1** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >10 | **2** | <1 | --- |
| Lead | ppm | ASTM D5185m | >10 | **0** | 0 | --- |
| Copper | ppm | ASTM D5185m | >50 | **11** | 6 | --- |
| Tin | ppm | ASTM D5185m | >10 | **1** | 0 | --- |
| Antimony | ppm | ASTM D5185m | | **---** | 1 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Barium | ppm | ASTM D5185m | 90 | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | 1 | --- |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | --- |
| Magnesium | ppm | ASTM D5185m | 90 | **<1** | 4 | --- |
| Calcium | ppm | ASTM D5185m | 2 | **0** | 0 | --- |
| Phosphorus | ppm | ASTM D5185m | | **90** | 399 | --- |
| Zinc | ppm | ASTM D5185m | | **12** | 14 | --- |
| Sulfur | ppm | ASTM D5185m | | **15214** | 3580 | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **4** | 5 | --- |
| Sodium | ppm | ASTM D5185m | | **0** | 2 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 0 | --- |
| Water | % | ASTM D6304 | >0.05 | **0.010** | 0.003 | --- |
| ppm Water | ppm | ASTM D6304 | >500 | **108.4** | 30 | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **2501** | 20078 | --- |
| Particles >6µm | | ASTM D7647 | >1300 | **844** | ▲ 6892 | --- |
| Particles >14µm | | ASTM D7647 | >80 | **18** | ▲ 177 | --- |
| Particles >21µm | | ASTM D7647 | >20 | **5** | ▲ 27 | --- |
| Particles >38µm | | ASTM D7647 | >4 | **0** | 3 | --- |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | **19/17/11** | ▲ 20/15 | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | **0.47** | 0.415 | --- |

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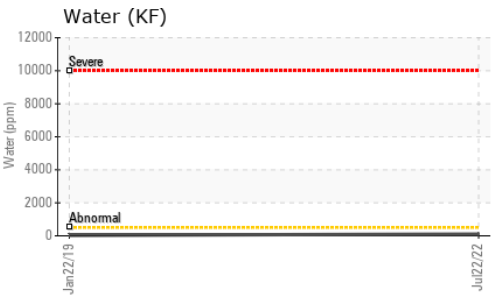
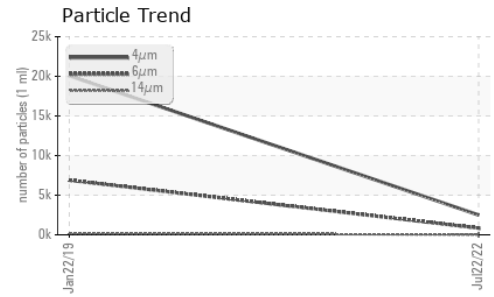
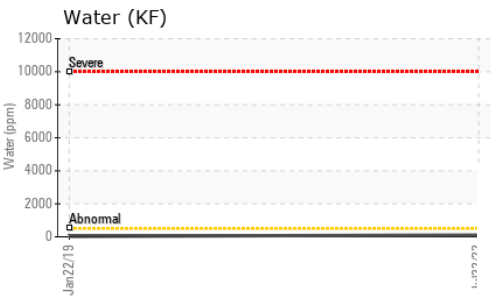
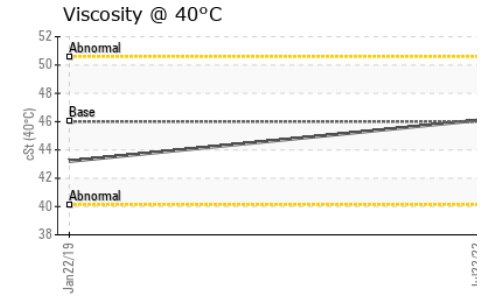
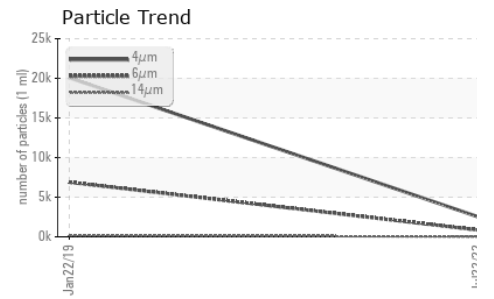


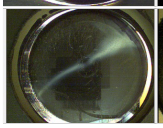



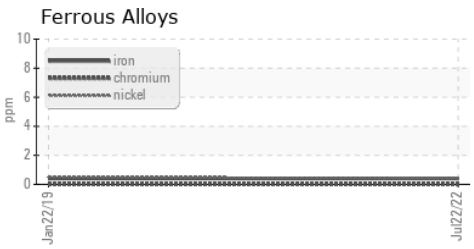



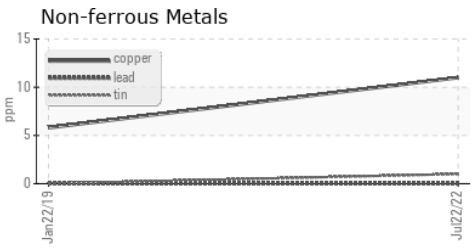

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | 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 | --- |

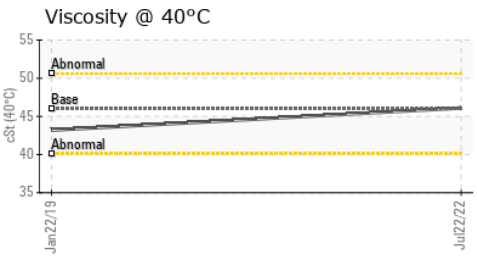
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **46.1** | 43.2 | --- |

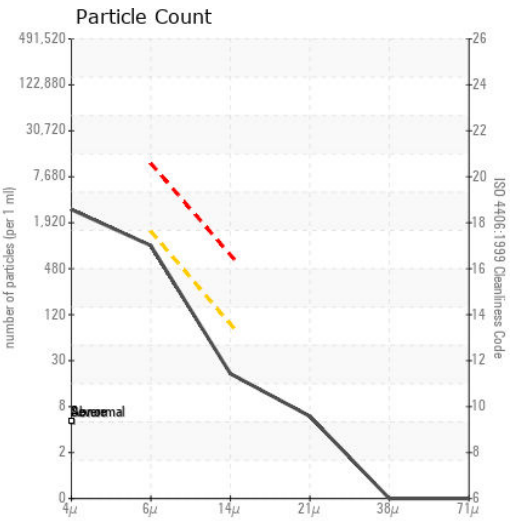
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |

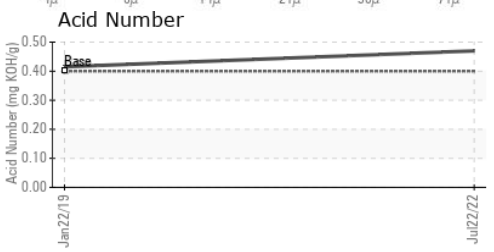
## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KCP49690 **Received** : 26 Aug 2022
**Lab Number** : 05628384 **Tested** : 30 Aug 2022
**Unique Number** : 10112905 **Diagnosed** : 30 Aug 2022 - Angela Borella
**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)*

**WAVE GRAPHICS INC**
320 N 2ND ST
MATTOON, IL
US 61938
Contact: DOUG
doug@wave-graphics.com
T:
F: