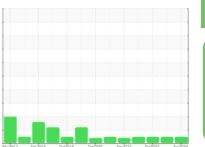


# **OIL ANALYSIS REPORT**

Sample Rating Trend



**NORMAL** 



Machine Id

# KAESER SM 10 4613182 (S/N 1319)

Component Compressor

KAESER SIGMA (OEM) S-460 (--- QTS)

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. 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.

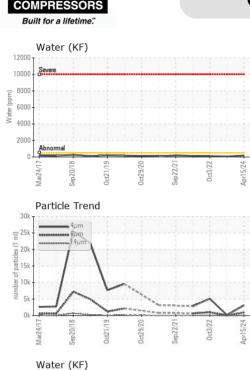
|                  |          | Mar2017 :    | Sep 2018 Oct 2019 | Oct2020 Sep2021 Oct2022 | Apr2024     |             |
|------------------|----------|--------------|-------------------|-------------------------|-------------|-------------|
| SAMPLE INFORM    | MATION   | method       | limit/base        | current                 | history1    | history2    |
| Sample Number    |          | Client Info  |                   | KCPA016820              | KCP53285    | KCP47010    |
| Sample Date      |          | Client Info  |                   | 15 Apr 2024             | 12 Apr 2023 | 03 Oct 2022 |
| Machine Age      | hrs      | Client Info  |                   | 40630                   | 37859       | 37856       |
| Oil Age          | hrs      | Client Info  |                   | 0                       | 0           | 0           |
| Oil Changed      |          | Client Info  |                   | Changed                 | Changed     | Not Changd  |
| Sample Status    |          |              |                   | NORMAL                  | NORMAL      | NORMAL      |
| WEAR METALS      |          | method       | limit/base        | current                 | history1    | history2    |
| Iron             | ppm      | ASTM D5185m  | >50               | <1                      | 0           | 0           |
| Chromium         | ppm      | ASTM D5185m  | >10               | <1                      | 0           | 0           |
| Nickel           | ppm      | ASTM D5185m  | >3                | 0                       | 0           | 0           |
| Titanium         | ppm      | ASTM D5185m  | >3                | <1                      | 0           | 0           |
| Silver           | ppm      | ASTM D5185m  | >2                | 0                       | 0           | 0           |
| Aluminum         | ppm      | ASTM D5185m  | >10               | 2                       | 0           | 0           |
| Lead             | ppm      | ASTM D5185m  | >10               | <1                      | 0           | 0           |
| Copper           | ppm      | ASTM D5185m  | >50               | 2                       | 11          | 12          |
| Tin              | ppm      | ASTM D5185m  | >10               | <1                      | <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           |
| Barium           | ppm      | ASTM D5185m  | 90                | 5                       | 2           | 0           |
| Molybdenum       | ppm      | ASTM D5185m  |                   | 0                       | 0           | 0           |
| Manganese        | ppm      | ASTM D5185m  |                   | 0                       | 0           | 0           |
| Magnesium        | ppm      | ASTM D5185m  | 90                | 51                      | <1          | 22          |
| Calcium          | ppm      | ASTM D5185m  | 2                 | 0                       | 0           | 0           |
| Phosphorus       | ppm      | ASTM D5185m  |                   | 3                       | 5           | 11          |
| Zinc             | ppm      | ASTM D5185m  |                   | 4                       | 0           | 30          |
| Sulfur           | ppm      | ASTM D5185m  |                   | 19167                   | 19227       | 17924       |
| CONTAMINANTS     |          | method       | limit/base        | current                 | history1    | history2    |
| Silicon          | ppm      | ASTM D5185m  | >25               | <1                      | <1          | 0           |
| Sodium           | ppm      | ASTM D5185m  |                   | 11                      | 0           | 3           |
| Potassium        | ppm      | ASTM D5185m  | >20               | 4                       | <1          | 6           |
| Water            | %        | ASTM D6304   | >0.05             | 0.018                   | 0.006       | 0.011       |
| ppm Water        | ppm      | ASTM D6304   | >500              | 184                     | 62.5        | 110.7       |
| FLUID CLEANLIN   | ESS      | method       | limit/base        | current                 | history1    | history2    |
| Particles >4µm   |          | ASTM D7647   |                   | 3098                    | 156         | 5107        |
| Particles >6µm   |          | ASTM D7647   | >1300             | 910                     | 61          | 988         |
| Particles >14µm  |          | ASTM D7647   | >80               | 58                      | 10          | 57          |
| Particles >21μm  |          | ASTM D7647   | >20               | 9                       | 4           | 15          |
| Particles >38µm  |          | ASTM D7647   | >4                | 1                       | 0           | 0           |
| Particles >71μm  |          | ASTM D7647   | >3                | 0                       | 0           | 0           |
| Oil Cleanliness  |          | ISO 4406 (c) | >/17/13           | 19/17/13                | 14/13/10    | 20/17/13    |
| FLUID DEGRADA    | TION     | method       | limit/base        | current                 | history1    | history2    |
| Acid Number (AN) | mg KOH/g | ASTM D8045   | 0.4               | 0.32                    | 0.32        | 0.31        |



12000

600

# **OIL ANALYSIS REPORT**



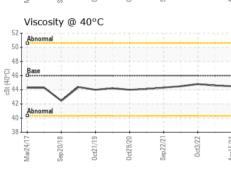
| VISUAL                  |        | method     | limit/base | current  | history1 | history2 |
|-------------------------|--------|------------|------------|----------|----------|----------|
| White Metal             | scalar | *Visual    | NONE       | NONE     | NONE     | NONE     |
| Yellow Metal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

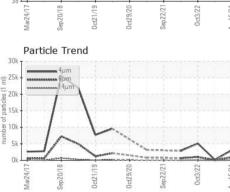
| Visc @ 40°C | cSt | ASTM D445 | 46 | 44.5 | 44.6 | 44.8     |
|-------------|-----|-----------|----|------|------|----------|
| SAMPLE IMAG | iES | method    |    |      |      | history2 |
|             |     |           |    |      |      |          |

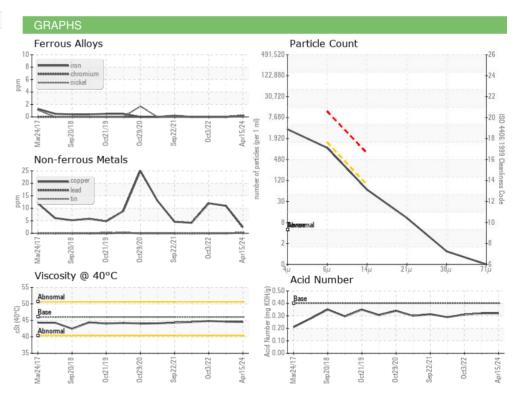
**Bottom** 

Color













Laboratory Sample No.

Lab Number : 06203394 Unique Number : 11070855

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KCPA016820 Received : 07 Jun 2024

**Tested** Diagnosed

: 11 Jun 2024 : 11 Jun 2024 - Angela Borella

**CBRE GWS LLC** 1834 SH 71 W CEDAR CREEK, TX US 78612 Contact: SERVICE MANAGER

Test Package : IND 2 ( Additional Tests: KF, PrtCount ) Certificate 12367 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)

Contact/Location: SERVICE MANAGER ? - CBRCED

T:

F: