

# **OIL ANALYSIS REPORT**

# Sample Rating Trend



Machine Id 8357128 (S/N 1791) Component

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

#### DIAGNOSIS

## Recommendation

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 no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

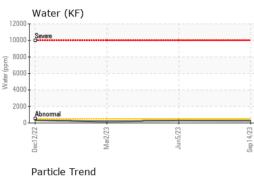
#### **Fluid Condition**

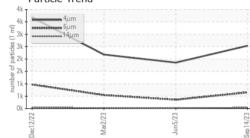
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

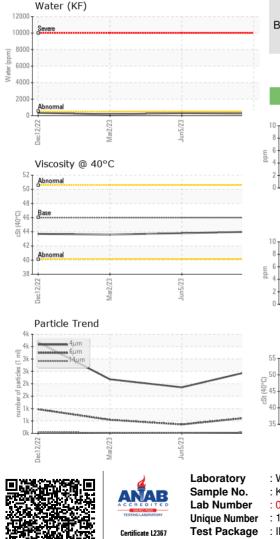
|                  |          | Dec202       | 2 Mar2023  | Jun2023 S   | ep2023      |             |
|------------------|----------|--------------|------------|-------------|-------------|-------------|
| SAMPLE INFORM    | IATION   | method       | limit/base | current     | history1    | history2    |
| Sample Number    |          | Client Info  |            | KC107604    | KC110776    | KC101059    |
| Sample Date      |          | Client Info  |            | 14 Sep 2023 | 05 Jun 2023 | 02 Mar 2023 |
| Machine Age      | hrs      | Client Info  |            | 3614        | 2463        | 1402        |
| Oil Age          | hrs      | Client Info  |            | 0           | 2463        | 1402        |
| Oil Changed      |          | Client Info  |            | Changed     | Not Changd  | Not Changd  |
| Sample Status    |          |              |            | NORMAL      | NORMAL      | NORMAL      |
| WEAR METALS      |          | method       | limit/base | current     | history1    | history2    |
| Iron             | ppm      | ASTM D5185m  | >50        | 0           | <1          | 0           |
| Chromium         | ppm      | ASTM D5185m  | >10        | 0           | 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        | 0           | 0           | <1          |
| Lead             | ppm      | ASTM D5185m  | >10        | 0           | <1          | 0           |
| Copper           | ppm      | ASTM D5185m  | >50        | 2           | 3           | 2           |
| Tin              | ppm      | ASTM D5185m  | >10        | 0           | 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           | 0           |
| Barium           | ppm      | ASTM D5185m  | 90         | 22          | 21          | 38          |
| Molybdenum       | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Manganese        | ppm      | ASTM D5185m  |            | <1          | 0           | <1          |
| Magnesium        | ppm      | ASTM D5185m  | 90         | 76          | 71          | 74          |
| Calcium          | ppm      | ASTM D5185m  | 2          | 2           | 3           | 4           |
| Phosphorus       | ppm      | ASTM D5185m  |            | 12          | 2           | 1           |
| Zinc             | ppm      | ASTM D5185m  |            | 0           | 5           | 4           |
| CONTAMINANTS     |          | method       | limit/base | current     | history1    | history2    |
| Silicon          | ppm      | ASTM D5185m  | >25        | <1          | 0           | 3           |
| Sodium           | ppm      | ASTM D5185m  |            | 9           | 16          | 12          |
| Potassium        | ppm      | ASTM D5185m  | >20        | 4           | 16          | 10          |
| Water            | %        | ASTM D6304   | >0.05      | 0.023       | 0.029       | 0.016       |
| ppm Water        | ppm      | ASTM D6304   | >500       | 234.7       | 293.1       | 168.7       |
| FLUID CLEANLIN   | ESS      | method       | limit/base | current     | history1    | history2    |
| Particles >4µm   |          | ASTM D7647   |            | 2537        | 1855        | 2180        |
| Particles >6µm   |          | ASTM D7647   | >1300      | 656         | 356         | 544         |
| Particles >14µm  |          | ASTM D7647   | >80        | 40          | 18          | 25          |
| Particles >21µm  |          | ASTM D7647   | >20        | 11          | 5           | 6           |
| Particles >38μm  |          | ASTM D7647   | >4         | 2           | 0           | 1           |
| Particles >71µm  |          | ASTM D7647   | >3         | 0           | 0           | 0           |
| Oil Cleanliness  |          | ISO 4406 (c) | >/17/13    | 19/17/12    | 18/16/11    | 18/16/12    |
| FLUID DEGRADA    |          | method       | limit/base | current     | history1    | history2    |
| Acid Number (AN) | mg KOH/g | ASTM D8045   | 0.4        | 0.33        | 0.30        | 0.31        |
|                  | 99       |              |            |             |             |             |



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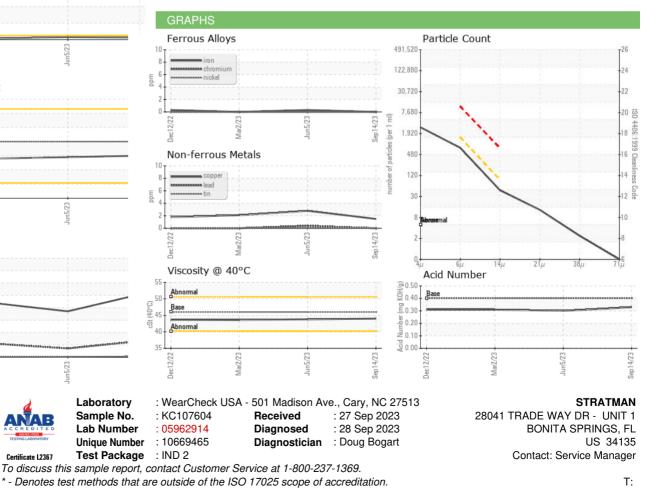






| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | LIGHT    |
| Yellow Metal     | scalar | *Visual   | 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    |
| Emulsified Water | scalar | *Visual   | >0.05      | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 46         | 44.0    | 43.8     | 43.6     |
| SAMPLE IMAGES    | S      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |

Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: Service Manager - STRBON

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