

# **OIL ANALYSIS REPORT**

## Sample Rating Trend





Compressor

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

#### DIAGNOSIS

#### Recommendation

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.

|                  |          | Apr201       | 8 Mar2019  | May2020 N   | 1ay2021     |                    |
|------------------|----------|--------------|------------|-------------|-------------|--------------------|
| SAMPLE INFORM    | MATION   | method       | limit/base | current     | history1    | history2           |
| Sample Number    |          | Client Info  |            | KC90426     | KC83604     | KC77808            |
| Sample Date      |          | Client Info  |            | 05 May 2021 | 05 May 2020 | 05 Mar 2019        |
| Machine Age      | hrs      | Client Info  |            | 19199       | 12999       | 6105               |
| Oil Age          | hrs      | Client Info  |            | 6200        | 3287        | 4922               |
| Oil Changed      |          | Client Info  |            | Changed     | Changed     | Changed            |
| Sample Status    |          |              |            | NORMAL      | NORMAL      | ABNORMAL           |
| WEAR METALS      |          | method       | limit/base | current     | history1    | history2           |
| Iron             | ppm      | ASTM D5185m  | >50        | 0           | 0           | <1                 |
| Chromium         | ppm      | ASTM D5185m  | >10        | 0           | 0           | 0                  |
| Nickel           | ppm      | ASTM D5185m  | >3         | 0           | 0           | <1                 |
| Titanium         | ppm      | ASTM D5185m  | >3         | 0           | 0           | 0                  |
| Silver           | ppm      | ASTM D5185m  | >2         | <1          | 0           | <1                 |
| Aluminum         | ppm      | ASTM D5185m  | >10        | 0           | 0           | <1                 |
| Lead             | ppm      | ASTM D5185m  | >10        | 0           | 0           | <1                 |
| Copper           | ppm      | ASTM D5185m  | >50        | 9           | 10          | 7                  |
| Tin              | ppm      | ASTM D5185m  | >10        | 0           | 0           | 0                  |
| Antimony         | ppm      | ASTM D5185m  |            | 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           | <1          | 3                  |
| Barium           | ppm      | ASTM D5185m  | 90         | 0           | 0           | 0                  |
| Molybdenum       | ppm      | ASTM D5185m  |            | 0           | 0           | 0                  |
| Manganese        | ppm      | ASTM D5185m  |            | 0           | 0           | 1                  |
| Magnesium        | ppm      | ASTM D5185m  | 90         | 2           | <1          | 0                  |
| Calcium          | ppm      | ASTM D5185m  | 2          | 0           | <1          | 0                  |
| Phosphorus       | ppm      | ASTM D5185m  |            | 19          | 4           | 63                 |
| Zinc             | ppm      | ASTM D5185m  |            | 67          | 55          | 24                 |
| CONTAMINANTS     | 6        | method       | limit/base | current     | history1    | history2           |
| Silicon          | ppm      | ASTM D5185m  | >25        | 3           | 6           | 5                  |
| Sodium           | ppm      | ASTM D5185m  |            | 0           | 0           | 4                  |
| Potassium        | ppm      | ASTM D5185m  | >20        | 0           | 0           | 6                  |
| Water            | %        | ASTM D6304   | >0.05      | 0.008       | 0.004       | ▲ 0.056            |
| ppm Water        | ppm      | ASTM D6304   | >500       | 82.7        | 42.8        | <mark>▲</mark> 560 |
| FLUID CLEANLIN   | NESS     | method       | limit/base | current     | history1    | history2           |
| Particles >4µm   |          | ASTM D7647   |            | 1626        | 1062        | 4240               |
| Particles >6µm   |          | ASTM D7647   | >1300      | 556         | 250         | 1010               |
| Particles >14µm  |          | ASTM D7647   | >80        | 34          | 14          | <b>1</b> 07        |
| Particles >21µm  |          | ASTM D7647   | >20        | 9           | 6           | <b>4</b> 4         |
| Particles >38µm  |          | ASTM D7647   |            | 0           | 0           | <b>6</b>           |
| Particles >71µm  |          | ASTM D7647   |            | 0           | 0           | 0                  |
| Oil Cleanliness  |          | ISO 4406 (c) | >/17/13    | 16/12       | 15/11       | ▲ 17/14            |
| FLUID DEGRADA    | ATION    | method       | limit/base | current     | history1    | history2           |
| Acid Number (AN) | mg KOH/g | ASTM D8045   |            | 0.431       | 0.475       | 0.431              |
| ( )              | 0 - 0    |              |            |             | -           | -                  |



Water (KF)

12000

100

# **OIL ANALYSIS REPORT**

scalar

scalar

scalar

scalar

scalar

scalar

scalar

\*Visual

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\*Visual

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scalar \*Visual

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

White Metal

Yellow Metal

Precipitate

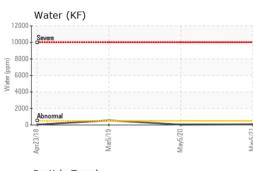
Silt

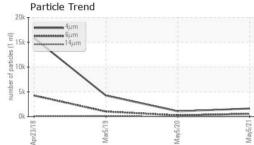
Debris

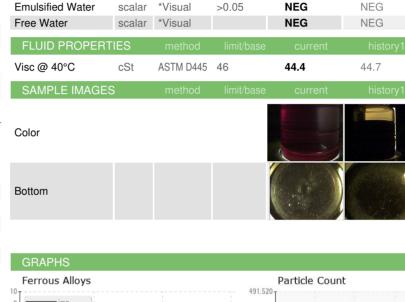
Odor

Sand/Dirt

Appearance







NONE

NONE

NONE

NONE

LIGHT

NONE

NORML

NORML

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

VLITE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

0.2%

NEG

44.72

