

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# 2970322 (S/N 3294) Component Compressor

### Fluid KAESER SIGMA (OEM) M-460 (--- QTS)

#### DIAGNOSIS

#### A Recommendation

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

There is a high amount of particulates present in the oil.

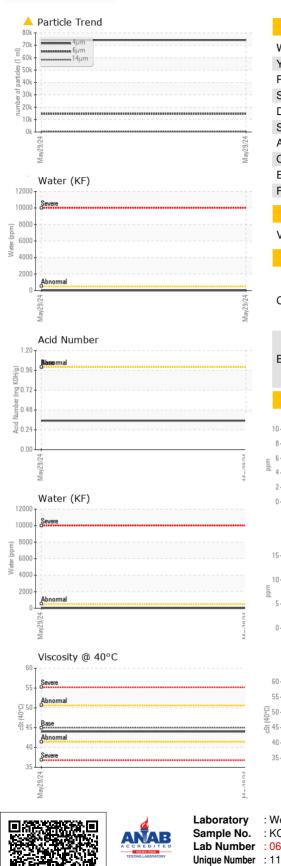
#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION |          | method       | limit/base | current           | history1 | history2 |
|--------------------|----------|--------------|------------|-------------------|----------|----------|
| Sample Number      |          | Client Info  |            | KCPA018949        |          |          |
| Sample Date        |          | Client Info  |            | 29 May 2024       |          |          |
| Machine Age        | hrs      | Client Info  |            | 6033              |          |          |
| Oil Age            | hrs      | Client Info  |            | 0                 |          |          |
| Oil Changed        |          | Client Info  |            | Changed           |          |          |
| Sample Status      |          |              |            | ABNORMAL          |          |          |
| WEAR METALS        |          | method       | limit/base | current           | history1 | history2 |
| Iron               | ppm      | ASTM D5185m  | >50        | 0                 |          |          |
| Chromium           | ppm      | ASTM D5185m  | >10        | <1                |          |          |
| Nickel             | ppm      | ASTM D5185m  | >3         | 0                 |          |          |
| Titanium           | ppm      | ASTM D5185m  | >3         | <1                |          |          |
| Silver             | ppm      | ASTM D5185m  | >2         | 0                 |          |          |
| Aluminum           | ppm      | ASTM D5185m  | >10        | 2                 |          |          |
| Lead               | ppm      | ASTM D5185m  | >10        | 0                 |          |          |
| Copper             | ppm      | ASTM D5185m  | >50        | 11                |          |          |
| Tin                | ppm      | ASTM D5185m  | >10        | 0                 |          |          |
| Vanadium           | ppm      | ASTM D5185m  |            | 0                 |          |          |
| Cadmium            | ppm      | ASTM D5185m  |            | 0                 |          |          |
| ADDITIVES          |          | method       | limit/base | current           | history1 | history2 |
| Boron              | ppm      | ASTM D5185m  | 0          | 0                 |          |          |
| Barium             | ppm      | ASTM D5185m  | 90         | 0                 |          |          |
| Molybdenum         | ppm      | ASTM D5185m  | 0          | 0                 |          |          |
| Manganese          | ppm      | ASTM D5185m  |            | 0                 |          |          |
| Magnesium          | ppm      | ASTM D5185m  | 100        | 1                 |          |          |
| Calcium            | ppm      | ASTM D5185m  | 0          | 0                 |          |          |
| Phosphorus         | ppm      | ASTM D5185m  | 0          | 5                 |          |          |
| Zinc               | ppm      | ASTM D5185m  | 0          | 2                 |          |          |
| Sulfur             | ppm      | ASTM D5185m  | 23500      | 18629             |          |          |
| CONTAMINANTS       |          | method       | limit/base | current           | history1 | history2 |
| Silicon            | ppm      | ASTM D5185m  | >25        | 2                 |          |          |
| Sodium             | ppm      | ASTM D5185m  |            | 0                 |          |          |
| Potassium          | ppm      | ASTM D5185m  | >20        | 1                 |          |          |
| Water              | %        | ASTM D6304   | >0.05      | 0.001             |          |          |
| ppm Water          | ppm      | ASTM D6304   | >500       | 2                 |          |          |
| FLUID CLEANLIN     | ESS      | method       | limit/base | current           | history1 | history2 |
| Particles >4µm     |          | ASTM D7647   |            | 74190             |          |          |
| Particles >6µm     |          | ASTM D7647   | >1300      | <u> </u>          |          |          |
| Particles >14µm    |          | ASTM D7647   | >80        | <b>478</b>        |          |          |
| Particles >21µm    |          | ASTM D7647   | >20        | <mark>/</mark> 56 |          |          |
| Particles >38µm    |          | ASTM D7647   | >4         | 3                 |          |          |
| Particles >71µm    |          | ASTM D7647   | >3         | 0                 |          |          |
| Oil Cleanliness    |          | ISO 4406 (c) | >/17/13    | <b>A</b> 23/21/16 |          |          |
| FLUID DEGRADA      | TION     | method       | limit/base | current           | history1 | history2 |
| Acid Number (AN)   | mg KOH/g | ASTM D8045   | 1.0        | 0.35              |          |          |



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| VISUAL  |                                      | method  | limit/base   | current                   | history1       | history2  |
|---|--------------------------------------|---|--|---------------------------|----------------|---|
| White Metal   | scalar                               | *Visual                                       | NONE   | NONE                      |                |   |
| Yellow Metal  | scalar                               | *Visual                                       | NONE   | NONE                      |                |   |
| Precipitate   | scalar                               | *Visual                                       | NONE   | NONE                      |                |   |
| Silt  | scalar                               | *Visual                                       | NONE   | NONE                      |                |   |
| Debris  | scalar                               | *Visual                                       | NONE   | NONE                      |                |   |
| Sand/Dirt   | scalar                               | *Visual                                       | NONE   | NONE                      |                |   |
| Appearance  | scalar                               | *Visual                                       | NORML  | NORML                     |                |   |
| Odor  | scalar                               | *Visual                                       | NORML  | NORML                     |                |   |
| Emulsified Water  | scalar                               | *Visual                                       | >0.05  | NEG                       |                |   |
| Free Water  | scalar                               | *Visual                                       | 20.00  | NEG                       |                |   |
| FLUID PROPERT   |                                      |   | limit/base   |                           |                | history?  |
|   |                                      | method  | limit/base   | current                   | history1       | history2  |
| Visc @ 40°C   | cSt                                  | ASTM D445                                     | 45   | 44.0                      |                |   |
| SAMPLE IMAGES   | 5                                    | method  | limit/base   | current                   | history1       | history2  |
| Color   |                                      |   |  |                           | no image       | no image  |
| Bottom  |                                      |   |  |                           | no image       | no image  |
| GRAPHS  |                                      |   |  |                           |                |   |
| Ferrous Alloys  |                                      |   |  | Particle Count            | t              |   |
| Non-ferrous Metals  | s                                    |   | 122,880<br>30,720<br>7,680<br>7/62/eW<br>(III 1,920<br>(IIII 1,920<br>30<br>(IIII 1,920<br>1,920<br>30<br>(IIII 1,920<br>30<br>30<br>480<br>480<br>30<br>480<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30 | Boreemal<br>6 Acid Number | 14μ 21μ        | -24<br>-22<br>-20 [S0 446; 1939 Clean<br>16 (1939 Clean<br>16 -14 ess Code<br>-14 -12 Code<br>-10<br>-8<br>-38μ 71μ |
| 5 - Base<br>Abnormal  |                                      |   | ag 0.48  |                           |                |   |
| 0 - T<br>Severe   |                                      |   | 4 0.24   |                           |                |   |
| May29/24  |                                      |   | May29/24   | May29/24                  |                | May29/24 -  |
| VearCheck USA - 501<br>CPA018949<br>6203401<br>1070862<br>ND 2 ( Additional Tes<br>ntact Customer Senvi | Recei<br>Teste<br>Diagr<br>ts: KF, P | ved : 07<br>d : 11<br>iosed : 11<br>rtCount ) | ' Jun 2024<br>Jun 2024<br>Jun 2024 - Ange  | ela Borella               | 1510 DELL<br>C | CHNOLOGIES<br>AVE, SUITE C<br>AMPBELL, CA<br>US 95008<br>Contact: JOE   |

Test Package : IN 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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Certificate L2367

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