

# **OIL ANALYSIS REPORT**

Machine Id KAESER SM 10 3384300 (S/N 1377)

Compressor Fluid KAESER SIGMA (OEM) M-460 (--- LTR)

## DIAGNOSIS

#### Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

#### Wear

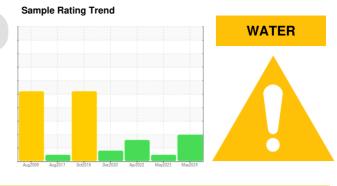
All component wear rates are normal.

#### Contamination

There is a light concentration of water present in the oil. High concentration of visible dirt/debris present in the oil.

## Fluid Condition

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



| SAMPLE INFORM                                                                                                | IATION | method                                               | limit/base             | current     | history1           | history2     |
|--------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------|------------------------|-------------|--------------------|--------------|
| Sample Number                                                                                                |        | Client Info                                          |                        | KCPA012934  | KCP53451           | KCP45502     |
| Sample Date                                                                                                  |        | Client Info                                          |                        | 22 May 2024 | 16 May 2023        | 26 Apr 2022  |
| Machine Age                                                                                                  | hrs    | Client Info                                          |                        | 39632       | 37143              | 34615        |
| Oil Age                                                                                                      | hrs    | Client Info                                          |                        | 0           | 0                  | 0            |
| Oil Changed                                                                                                  |        | Client Info                                          |                        | Not Changd  | Changed            | Changed      |
| Sample Status                                                                                                |        |                                                      |                        | ABNORMAL    | NORMAL             | ATTENTION    |
| WEAR METALS                                                                                                  |        | method                                               | limit/base             | current     | history1           | history2     |
| Iron                                                                                                         | ppm    | ASTM D5185m                                          | >50                    | 0           | 1                  | <1           |
| Chromium                                                                                                     | ppm    | ASTM D5185m                                          | >10                    | <1          | 0                  | 0            |
| Nickel                                                                                                       | ppm    | ASTM D5185m                                          | >3                     | 0           | 0                  | <1           |
| Titanium                                                                                                     | ppm    | ASTM D5185m                                          | >3                     | 0           | 0                  | 0            |
| Silver                                                                                                       | ppm    | ASTM D5185m                                          | >2                     | 0           | 0                  | <1           |
| Aluminum                                                                                                     | ppm    | ASTM D5185m                                          | >10                    | 3           | 0                  | <1           |
| Lead                                                                                                         | ppm    | ASTM D5185m                                          | >10                    | <1          | 0                  | 0            |
| Copper                                                                                                       | ppm    | ASTM D5185m                                          | >50                    | 5           | 13                 | 7            |
| Tin                                                                                                          | ppm    | ASTM D5185m                                          | >10                    | <1          | 0                  | <1           |
| Antimony                                                                                                     | ppm    | ASTM D5185m                                          |                        |             |                    |              |
| Vanadium                                                                                                     | ppm    | ASTM D5185m                                          |                        | 0           | <1                 | 0            |
| Cadmium                                                                                                      | ppm    | ASTM D5185m                                          |                        | 0           | 0                  | 0            |
| ADDITIVES                                                                                                    |        | method                                               | limit/base             | current     | history1           | history2     |
| Boron                                                                                                        | ppm    | ASTM D5185m                                          | 0                      | 0           | 0                  | <1           |
| Barium                                                                                                       | ppm    | ASTM D5185m                                          | 90                     | 0           | 0                  | 0            |
| Molybdenum                                                                                                   | ppm    | ASTM D5185m                                          | 0                      | 0           | 0                  | 0            |
| Manganese                                                                                                    | ppm    | ASTM D5185m                                          |                        | 0           | <1                 | 0            |
| Magnesium                                                                                                    | ppm    | ASTM D5185m                                          | 100                    | 30          | 11                 | 37           |
| Calcium                                                                                                      | ppm    | ASTM D5185m                                          | 0                      | 0           | 0                  | <1           |
| Phosphorus                                                                                                   | ppm    | ASTM D5185m                                          | 0                      | 0           | 0                  | 6            |
| Zinc                                                                                                         | ppm    | ASTM D5185m                                          | 0                      | 4           | 51                 | 11           |
| Sulfur                                                                                                       | ppm    | ASTM D5185m                                          | 23500                  | 18939       | 19712              | 16317        |
| CONTAMINANTS                                                                                                 |        | method                                               | limit/base             | current     | history1           | history2     |
|                                                                                                              |        |                                                      |                        |             |                    |              |
| Silicon                                                                                                      | ppm    | ASTM D5185m                                          | >25                    | 0           | <1                 | <1           |
| Sodium                                                                                                       | ppm    | ASTM D5185m                                          | 00                     | 6           | 13                 | 16           |
| Potassium                                                                                                    | ppm    | ASTM D5185m                                          |                        | 3           | 3                  | <1           |
| Water                                                                                                        | %      | ASTM D6304                                           |                        | ▲ 0.075     | 0.019              | 0.015        |
| ppm Water                                                                                                    | ppm    | ASTM D6304                                           |                        | A 750       | 195.9              | 153.6        |
| FLUID CLEANLIN                                                                                               | ESS    | method                                               | limit/base             | current     | history1           | history2     |
|                                                                                                              |        | ASTM D7647                                           |                        |             | 2211               | 5336         |
| •                                                                                                            |        |                                                      |                        |             | 636                | 1585         |
| Particles >6µm                                                                                               |        | ASTM D7647                                           |                        |             |                    |              |
| Particles >6µm<br>Particles >14µm                                                                            |        | ASTM D7647                                           | >80                    |             | 72                 | 141          |
| Particles >6μm<br>Particles >14μm<br>Particles >21μm                                                         |        | ASTM D7647<br>ASTM D7647                             | >80<br>>20             |             | 72<br>23           | 29           |
| Particles >6μm<br>Particles >14μm<br>Particles >21μm<br>Particles >38μm                                      |        | ASTM D7647<br>ASTM D7647<br>ASTM D7647               | >80<br>>20<br>>4       |             | 72<br>23<br>1      | 29<br>1      |
| Particles >4µm<br>Particles >6µm<br>Particles >14µm<br>Particles >21µm<br>Particles >38µm<br>Particles >71µm |        | ASTM D7647<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647 | >80<br>>20<br>>4<br>>3 |             | 72<br>23<br>1<br>0 | 29<br>1<br>0 |
| Particles >6µm<br>Particles >14µm<br>Particles >21µm<br>Particles >38µm<br>Particles >71µm                   |        | ASTM D7647<br>ASTM D7647<br>ASTM D7647               | >80<br>>20<br>>4       |             | 72<br>23<br>1      | 29<br>1      |
| Particles >6μm<br>Particles >14μm<br>Particles >21μm<br>Particles >38μm                                      | TION   | ASTM D7647<br>ASTM D7647<br>ASTM D7647<br>ASTM D7647 | >80<br>>20<br>>4<br>>3 |             | 72<br>23<br>1<br>0 | 29<br>1<br>0 |

Report Id: MTAELK [WUSCAR] 06199148 (Generated: 06/10/2024 10:58:19) Rev: 1

0.28 0.25 Contact/Location: SERVICE MANAGER ? - MTAELK



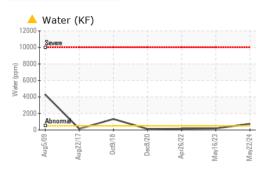
Abnorma 40

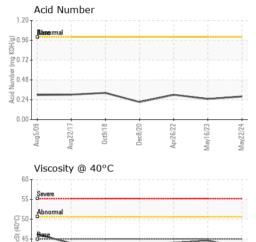
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# **OIL ANALYSIS REPORT**





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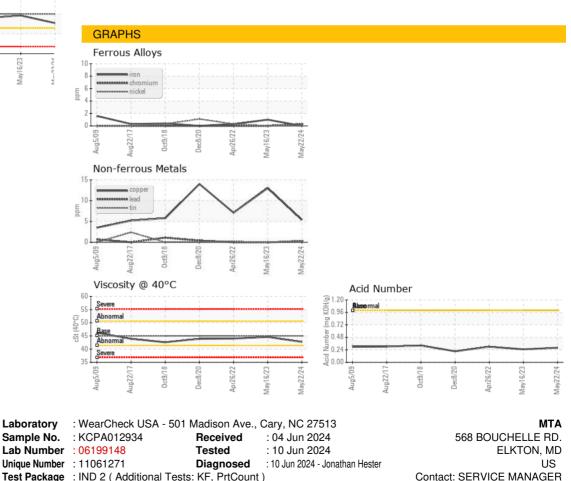
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| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | 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       | 🔺 HEAVY | LIGHT    | LIGHT    |
| 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      | 0.2%    | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 45         | 42.7    | 44.6     | 44.0     |
| SAMPLE IMAGES    | 6      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            | •       |          |          |

Bottom

May16/23

pr26/22



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)

Laboratory

Sample No.

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Contact/Location: SERVICE MANAGER ? - MTAELK

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