

# **PROBLEM SUMMARY**

Sample Rating Trend

WATER

Machine Id

# KAESER SM 10 5523596 (S/N 1049)

Component

Compressor

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

# **COMPONENT CONDITION SUMMARY**



## **RECOMMENDATION**

Oil and 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 recommend an early resample in 500 hours to monitor this condition.

| PROBLEMATIC TEST RESULTS |        |            |       |                |          |  |  |  |
|--------------------------|--------|------------|-------|----------------|----------|--|--|--|
| Sample Status            |        |            |       | ABNORMAL       | ABNORMAL |  |  |  |
| Water                    | %      | ASTM D6304 | >0.05 | <b>△</b> 0.239 | 0.024    |  |  |  |
| ppm Water                | ppm    | ASTM D6304 | >500  | <b>2390</b>    | 240      |  |  |  |
| Debris                   | scalar | *Visual    | NONE  | ▲ MODER        | NONE     |  |  |  |
| Appearance               | scalar | *Visual    | NORML | ▲ HAZY         | NORML    |  |  |  |
| Emulsified Water         | scalar | *Visual    | >0.05 | <b>0.2%</b>    | NEG      |  |  |  |

Customer Id: DOLJAN Sample No.: KCP49674 Lab Number: 05622451 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

#### **RECOMMENDED ACTIONS** Action Date Done By Description **Status** Change Fluid ? Oil and filter change at the time of sampling has been noted. Change Filter ? Oil and filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of ? Alert particles present in this sample.

# HISTORICAL DIAGNOSIS

15 Aug 2018 Diag: Angela Borella

ISO



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





# **OIL ANALYSIS REPORT**

Sample Rating Trend

**WATER** 

# KAESER SM 10 5523596 (S/N 1049)

Compressor

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

# **DIAGNOSIS**

#### Recommendation

Oil and 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 recommend an early resample in 500 hours to monitor this condition.

All component wear rates are normal.

#### Contamination

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

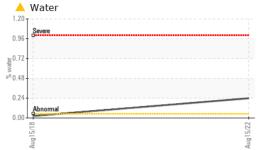
## **Fluid Condition**

The AN level is acceptable for this fluid.

|                  |          |              | Aug2018    | Aug2022        |               |           |
|------------------|----------|--------------|------------|----------------|---------------|-----------|
| SAMPLE INFORM    | MATION   | method       | limit/base | current        | history 1     | history 2 |
| Sample Number    |          |              |            | KCP49674       | KCP06781      |           |
| Sample Date      |          |              |            | 15 Aug 2022    | 15 Aug 2018   |           |
| Machine Age      | hrs      |              |            | 20133          | 7677          |           |
| Oil Age          | hrs      |              |            | 3000           | 7677          |           |
| Oil Changed      |          |              |            | Changed        | Changed       |           |
| Sample Status    |          |              |            | ABNORMAL       | ABNORMAL      |           |
| WEAR METALS      |          | method       | limit/base | current        | history 1     | history 2 |
| Iron             | ppm      | ASTM D5185m  | >50        | 3              | 3             |           |
| Chromium         | ppm      | ASTM D5185m  | >10        | 0              | <1            |           |
| Nickel           | ppm      | ASTM D5185m  | >3         | 0              | 0             |           |
| Titanium         | ppm      | ASTM D5185m  | >3         | 0              | 0             |           |
| Silver           | ppm      | ASTM D5185m  | >2         | 0              | <1            |           |
| Aluminum         | ppm      | ASTM D5185m  | >10        | 0              | <1            |           |
| Lead             | ppm      | ASTM D5185m  | >10        | 0              | <1            |           |
| Copper           | ppm      | ASTM D5185m  | >50        | 16             | 4             |           |
| Tin              | ppm      | ASTM D5185m  | >10        | <1             | <1            |           |
| Antimony         | ppm      | ASTM D5185m  |            |                | 0             |           |
| Vanadium         | ppm      | ASTM D5185m  |            | 0              | 0             |           |
| Cadmium          | ppm      | ASTM D5185m  |            | 0              | 0             |           |
| ADDITIVES        |          | method       | limit/base | current        | history 1     | history 2 |
| Boron            | ppm      | ASTM D5185m  | 0          | 1              | <1            |           |
| Barium           | ppm      | ASTM D5185m  | 90         | 0              | 15            |           |
| Molybdenum       | ppm      | ASTM D5185m  | 0          | 0              | 0             |           |
| Manganese        | ppm      | ASTM D5185m  |            | <1             | <1            |           |
| Magnesium        | ppm      | ASTM D5185m  | 100        | 8              | 55            |           |
| Calcium          | ppm      | ASTM D5185m  | 0          | 0              | <1            |           |
| Phosphorus       | ppm      | ASTM D5185m  | 0          | 2              | 1             |           |
| Zinc             | ppm      | ASTM D5185m  | 0          | 25             | 7             |           |
| Sulfur           | ppm      | ASTM D5185m  | 23500      | 18227          | 22070         |           |
| CONTAMINANTS     | 1        | method       | limit/base | current        | history 1     | history 2 |
| Silicon          | ppm      | ASTM D5185m  | >25        | <1             | <1            |           |
| Sodium           | ppm      | ASTM D5185m  |            | 5              | 13            |           |
| Potassium        | ppm      | ASTM D5185m  | >20        | 0              | 2             |           |
| Water            | %        | ASTM D6304   | >0.05      | <b>△</b> 0.239 | 0.024         |           |
| ppm Water        | ppm      | ASTM D6304   | >500       | <b>2390</b>    | 240           |           |
| FLUID CLEANLIN   | IESS     | method       | limit/base | current        | history 1     | history 2 |
| Particles >4μm   |          | ASTM D7647   |            |                | 14729         |           |
| Particles >6µm   |          | ASTM D7647   | >1300      |                | <u></u> 4082  |           |
| Particles >14µm  |          | ASTM D7647   | >80        |                | 77            |           |
| Particles >21µm  |          | ASTM D7647   | >20        |                | 20            |           |
| Particles >38μm  |          | ASTM D7647   | >4         |                | 0             |           |
| Particles >71μm  |          | ASTM D7647   | >3         |                | 0             |           |
| Oil Cleanliness  |          | ISO 4406 (c) | >/17/13    |                | <b>1</b> 9/13 |           |
| FLUID DEGRADA    | TION     | method       | limit/base | current        | history 1     | history 2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045   | 1.0        | 0.33           | 0.351         |           |



# **OIL ANALYSIS REPORT**

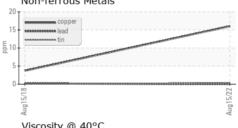


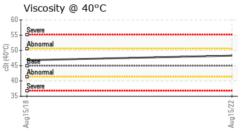
| VISUAL                  |        | method    | limit/base | current     | history 1 | history 2 |
|-------------------------|--------|-----------|------------|-------------|-----------|-----------|
| White Metal             | scalar | *Visual   | NONE       | NONE        | VLITE     |           |
| Yellow Metal            | scalar | *Visual   | NONE       | NONE        | NONE      |           |
| Precipitate             | scalar | *Visual   | NONE       | NONE        | NONE      |           |
| Silt                    | scalar | *Visual   | NONE       | NONE        | NONE      |           |
| Debris                  | scalar | *Visual   | NONE       | ▲ MODER     | NONE      |           |
| Sand/Dirt               | scalar | *Visual   | NONE       | NONE        | NONE      |           |
| Appearance              | scalar | *Visual   | NORML      | ▲ HAZY      | NORML     |           |
| Odor                    | scalar | *Visual   | NORML      | NORML       | NORML     |           |
| <b>Emulsified Water</b> | scalar | *Visual   | >0.05      | <b>0.2%</b> | NEG       |           |
| Free Water              | scalar | *Visual   |            | NEG         | NEG       |           |
| FLUID PROPERT           | TES    | method    | limit/base | current     | history 1 | history 2 |
| Visc @ 40°C             | cSt    | ASTM D445 | 45         | 48.3        | 46.81     |           |
| SAMPLE IMAGES           |        | method    | limit/base | current     | history 1 | history 2 |
|                         |        |           |            |             |           |           |

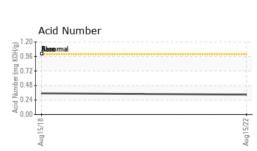
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## **GRAPHS**

Ferrous Alloys Non-ferrous Metals











Laboratory Sample No. Lab Number Unique Number : 10101958

: KCP49674 : 05622451

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

Diagnostician : Don Baldridge Test Package : IND 2 ( Additional Tests: KF, PrtCount )

: 19 Aug 2022 : 23 Aug 2022

USA 53546

Contact: Service Manager

**DOLLAR GENERAL** 

101 INNOVATION DR

JANESVILLE, WI

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)

T:

F: