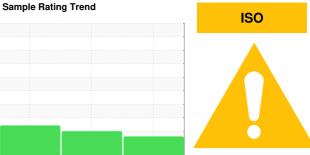


PROBLEM SUMMARY



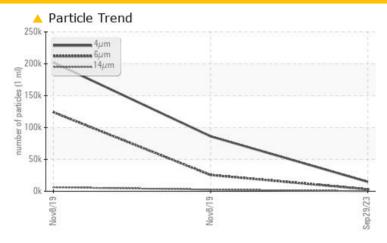
4855505 (S/N 1877)

Component

Compressor

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

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS | | | | | | | | | |
|--------------------------|--------------|---------|-----------------|-----------------|-------------------------|--|--|--|--|
| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL | | | | |
| Particles >6µm | ASTM D7647 | >1300 | △ 3055 | <u>▲</u> 123997 | <u>\$\text{25515}\$</u> | | | | |
| Particles >14μm | ASTM D7647 | >80 | 158 | △ 6265 | 2549 | | | | |
| Particles >21µm | ASTM D7647 | >20 | △ 32 | △ 597 | △ 688 | | | | |
| Oil Cleanliness | ISO 4406 (c) | >/17/13 | 21/19/14 | 2 4/20 | <u>22/19</u> | | | | |

Customer Id: MORSIL Sample No.: KCPA002887 Lab Number: 05969668 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

08 Nov 2019 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. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



08 Nov 2019 Diag: Don Baldridge

WEAR



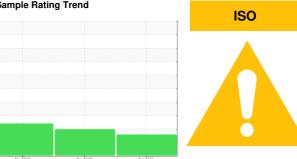
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.





OIL ANALYSIS REPORT

Sample Rating Trend



4855505 (S/N 1877)

Compressor

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The 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 suitable for further service.

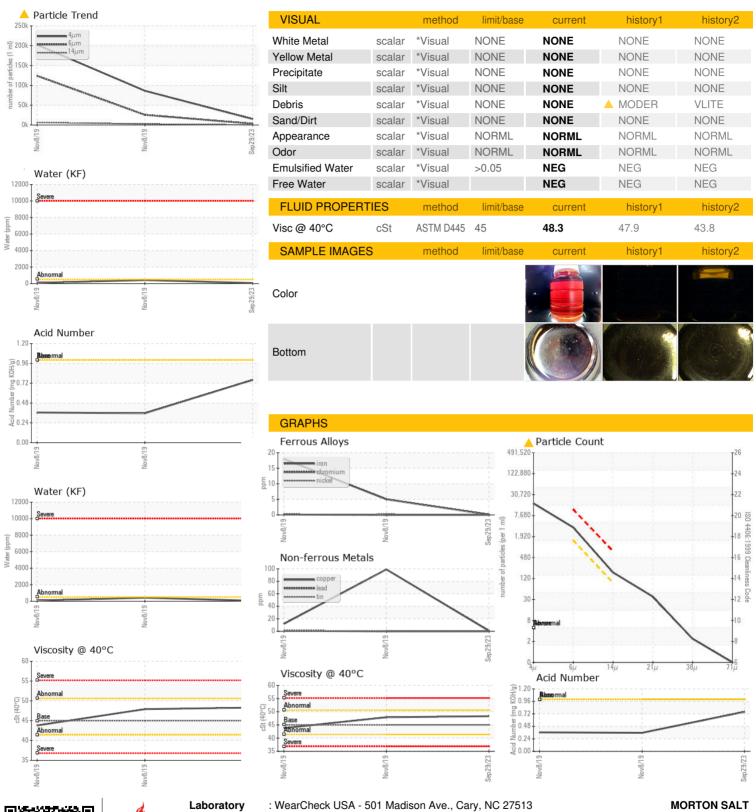
| | | No | .2019 | Nov2019 Sep202 | 13 | |
|-----------------|--------|---------------|--------------|-------------------|----------------|------------------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | III III Dasc | KCPA002887 | KC82670 | KC84315 |
| Sample Date | | Client Info | | 29 Sep 2023 | 08 Nov 2019 | 08 Nov 2019 |
| Machine Age | hrs | Client Info | | 74625 | 47527 | 47527 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | 1113 | Client Info | | N/A | Changed | Changed |
| Sample Status | | Oliciti IIIIo | | ABNORMAL | ABNORMAL | ABNORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | <1 | 18 | 5 |
| Chromium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | | 2 | <1 | 0 |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | | <1 | 12 | <u>^</u> 99 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185m | | | <1 | 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 | <1 | 0 |
| Barium | ppm | ASTM D5185m | 90 | 0 | <1 | 1 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 100 | 0 | <1 | 6 |
| Calcium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 0 | 170 | 317 | 1 |
| Zinc | ppm | ASTM D5185m | 0 | 0 | 12 | 110 |
| Sulfur | ppm | ASTM D5185m | 23500 | 258 | 1124 | 3933 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >25 | <1 | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | 0 | 1 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 2 |
| Water | % | ASTM D6304 | >0.05 | 0.006 | 0.042 | 0.009 |
| ppm Water | ppm | ASTM D6304 | >500 | 62.8 | 420 | 90.7 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4μm | | ASTM D7647 | | 14816 | 202224 | 86247 |
| Particles >6µm | | ASTM D7647 | >1300 | <u> </u> | <u>123997</u> | <u>△</u> 25515 |
| Particles >14μm | | ASTM D7647 | >80 | <u> </u> | <u>▲</u> 6265 | <u>\$\text{2549}\$</u> |
| Particles >21µm | | ASTM D7647 | >20 | <u>▲</u> 32 | <u>▲</u> 597 | ▲ 688 |
| Particles >38μm | | ASTM D7647 | >4 | 2 | <u> </u> | <u>▲</u> 25 |
| Particles >71μm | | ASTM D7647 | | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | <u>^</u> 21/19/14 | <u>4</u> 24/20 | <u>22/19</u> |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| | | | | | | |

0.76

0.365



OIL ANALYSIS REPORT







Certificate L2367

Sample No. Lab Number **Unique Number**

: 05969668

: KCPA002887 : 10676219

Received Diagnosed

: 09 Oct 2023 Diagnostician : Angela Borella

: 04 Oct 2023

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

45 RIBAUD AVE SILVER SPRINGS, NY US 14550

Contact: Service Manager

T: F: