

### **OIL ANALYSIS REPORT**

# Area **S-460 [9821]** KAESER 5332376 - ABBOTT RUBBER (S/N 1155) Component Compressor

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

### Wear

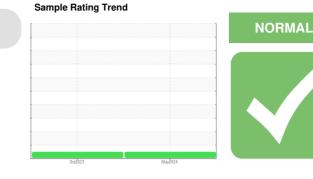
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

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



| SAMPLE INFORM | ΜΑΤΙΟΝ | method      | limit/base | current     | history1    | history2 |
|---------------|--------|-------------|------------|-------------|-------------|----------|
| Sample Number |        | Client Info |            | UDI0000226  | UCH05995724 |          |
| Sample Date   |        | Client Info |            | 14 May 2024 | 20 Oct 2023 |          |
| Machine Age   | hrs    | Client Info |            | 33892       | 28930       |          |
| Oil Age       | hrs    | Client Info |            | 4962        | 3784        |          |
| Oil Changed   |        | Client Info |            | Changed     | Changed     |          |
| Sample Status |        |             |            | NORMAL      | NORMAL      |          |
| CONTAMINATIO  | N      | method      | limit/base | current     | history1    | history2 |
| Water         |        | WC Method   | >0.05      | NEG         | NEG         |          |
| WEAR METALS   |        | method      | limit/base | current     | history1    | history2 |
| Iron          | ppm    | ASTM D5185m | >50        | 1           | 0           |          |
| Chromium      | ppm    | ASTM D5185m | >10        | <1          | 0           |          |
| Nickel        | ppm    | ASTM D5185m | >3         | <1          | 0           |          |
| Titanium      | ppm    | ASTM D5185m | >3         | <1          | 0           |          |
| Silver        | ppm    | ASTM D5185m | >2         | <1          | 0           |          |
| Aluminum      | ppm    | ASTM D5185m | >10        | 6           | 0           |          |
| Lead          | ppm    | ASTM D5185m | >10        | <1          | 0           |          |
| Copper        | ppm    | ASTM D5185m | >50        | 3           | 7           |          |
| Tin           | ppm    | ASTM D5185m | >10        | 1           | 0           |          |
| Vanadium      | ppm    | ASTM D5185m |            | 1           | 0           |          |
| Cadmium       | ppm    | ASTM D5185m |            | <1          | 0           |          |
| ADDITIVES     |        | method      | limit/base | current     | history1    | history2 |
| Boron         | ppm    | ASTM D5185m |            | 0           | 0           |          |
| Barium        | ppm    | ASTM D5185m | 90         | 3           | 0           |          |
| Molybdenum    | ppm    | ASTM D5185m |            | <1          | 0           |          |
| Manganese     | ppm    | ASTM D5185m |            | <1          | 0           |          |
| Magnesium     | ppm    | ASTM D5185m | 90         | 25          | 0           |          |
| Calcium       | ppm    | ASTM D5185m | 2          | 6           | 0           |          |
| Phosphorus    | ppm    | ASTM D5185m |            | 4           | 235         |          |
| Zinc          | ppm    | ASTM D5185m |            | 2           | 4           |          |
| Sulfur        | ppm    | ASTM D5185m |            | 9606        | 3272        |          |
| CONTAMINANTS  | 3      | method      | limit/base | current     | history1    | history2 |
| Silicon       | ppm    | ASTM D5185m | >25        | 2           | <1          |          |
| Sodium        | ppm    | ASTM D5185m |            | 21          | <1          |          |
| Potassium     | ppm    | ASTM D5185m | >20        | 6           | 2           |          |
|               |        | mathad      | limit/booo | ourropt     | bistorut    | biotom/0 |

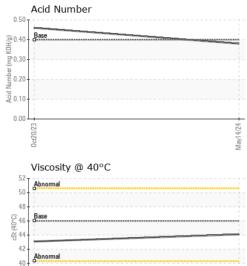
| FLUID DEGRADA    | TION     | method     |     |      |      | history2 |
|------------------|----------|------------|-----|------|------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.38 | 0.46 |          |



38

# **OIL ANALYSIS REPORT**

VISUAL



| White Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual  | NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NORML   | NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NORML | NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE  | <br><br>                                       |
|--|--|---|---|---|---|--|
| Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT                                | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | NONE<br>NONE<br>NONE<br>NORML   | NONE<br>NONE<br>NONE<br>NONE                          | NONE<br>NONE<br>NONE<br>NONE  | <br><br>                                       |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | NONE<br>NONE<br>NORML   | NONE<br>NONE<br>NONE                                  | NONE<br>NONE<br>NONE  |  |
| Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT   | scalar<br>scalar<br>scalar<br>scalar<br>scalar   | *Visual<br>*Visual<br>*Visual<br>*Visual  | NONE<br>NORML   | NONE<br>NONE  | NONE<br>NONE  |  |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT   | scalar<br>scalar<br>scalar<br>scalar   | *Visual<br>*Visual<br>*Visual   | NONE<br>NORML   | NONE  | NONE  |  |
| Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT  | scalar<br>scalar<br>scalar   | *Visual<br>*Visual  | NORML   |   |   |  |
| Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT  | scalar<br>scalar   | *Visual   |   | NORML   | NORMI   |  |
| Emulsified Water<br>Free Water<br>FLUID PROPERT  | scalar   |   | NORMI   |   |   |  |
| Free Water<br>FLUID PROPERT  |  | *Visual   | TIOTUME   | NORML   | NORML   |  |
| FLUID PROPERT  | scalar   |   | >0.05   | NEG   | NEG   |  |
|  |  | *Visual   |   | NEG   | NEG   |  |
|  | IES  | method  | limit/base  | current   | history1  | history2                                       |
| Visc @ 40°C  | cSt  | ASTM D445   | 46  | 44.1  | 43.1  |  |
| SAMPLE IMAGES  | 3  | method  | limit/base  | current   | history1  | history2                                       |
| Color  |  |   |   |   | A.  | no image                                       |
| Bottom   |  |   |   |   |   | no image                                       |
| GRAPHS<br>Ferrous Alloys   |  |   |   |   |   |  |
| 10 iron  |  |   |   |   |   |  |
| o accesso chromium   |  |   |   |   |   |  |
| 4  |  |   |   |   |   |  |
| 2  |  |   |   |   |   |  |
|  |  |   | 4   |   |   |  |
| :120/2   |  |   | y14/2   |   |   |  |
| 0  |  |   | May   |   |   |  |
|  | 5  |   |   |   |   |  |
| 8- copper  |  |   |   |   |   |  |
| C  |  |   |   |   |   |  |
| 4  |  |   |   |   |   |  |
| 2  |  |   |   |   |   |  |
|  |  |   | 4   |   |   |  |
| ct20/2   |  |   | w14/2   |   |   |  |
| _  |  |   | Ma  |   |   |  |
|  |  |   | 0.50  | Acid Number   |   |  |
| Abnormal   |  |   | (B) 10.50   | Base  |   |  |
| Base   |  |   | Q U.40  | + 0   |   |  |
| .45  |  |   |   |   |   |  |
| 40 Abnormal  |  |   | - N 0.10  | -   |   |  |
| 35   |  |   |   |   |   |  |
| 0ct20/2:   |  |   | 1ay14/24  | 0ct20/2;  |   |  |
| -  |  |   | 2   | -   |   |  |
| UDI0000226<br>06184400<br>11035726<br>IND 2  | Recei<br>Teste<br>Diagn  | ved : 20<br>d : 21<br>losed : 22  | May 2024<br>May 2024<br>May 2024 - W  |   | 2201 CURT<br>DOWNEF   | TISS STREE<br>RS GROVE,<br>US 605 <sup>-</sup> |
|  | Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys<br>Perrous Alloys<br>Non-ferrous Metals<br>Color<br>Non-ferrous Metals<br>Color<br>Non-ferrous Metals<br>Color<br>Non-ferrous Metals<br>Color<br>Non-ferrous Metals<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color<br>Color | Bottom<br>GRAPHS<br>Ferrous Alloys<br>Ferrous Alloys<br>Non-ferrous Metals<br>Viscosity @ 40°C<br>Viscosity @ 40°C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C | Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys<br>Non-ferrous Metals<br>Viscosity @ 40°C<br>Viscosity @ 40°C | Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys           | Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys<br>Ferrous Alloys<br>Non-ferrous Metals<br>Output<br>Non-ferrous Metals<br>Output<br>Viscosity @ 40°C<br>Viscosity @ 40°C<br>Cation Number<br>Output<br>Construction of the second state of | Color<br>Bottom<br>CGRAPHS<br>Ferrous Alloys   |

Contact/Location: MICHAEL FERRIS - UCDELDOW