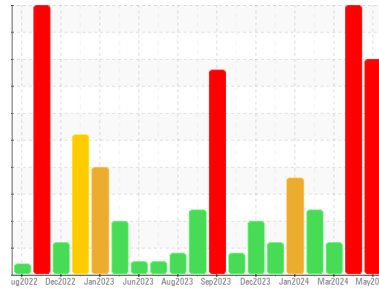




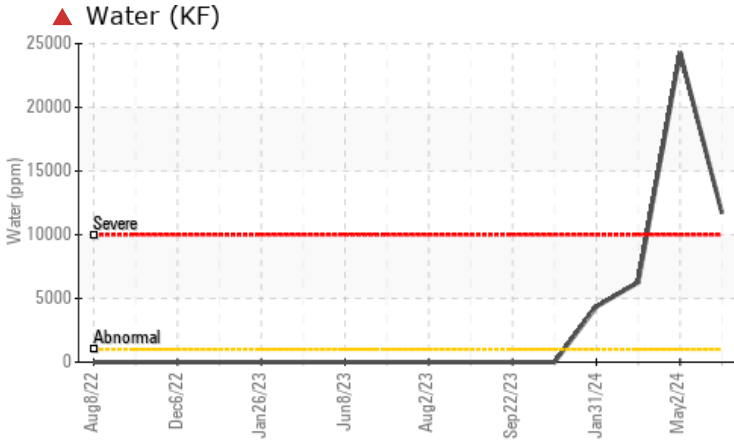
PROBLEM SUMMARY

Area
MVD
 Machine Id
B-03-411 Pressure Displacement Blower Non-Drive End
 Component
Non-Drive End Compressor
 Fluid
GARDNER DENVER AEON PD (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | SEVERE | SEVERE | ABNORMAL |
|------------------|--------|------------|-------|---------|---------|----------|
| Water | % | ASTM D6304 | >0.1 | ▲ 1.17 | ▲ 2.43 | --- |
| ppm Water | ppm | ASTM D6304 | >1000 | ▲ 11700 | ▲ 24300 | --- |
| Emulsified Water | scalar | *Visual | >0.1 | ▲ 0.2% | ▲ 0.2% | NEG |
| Free Water | scalar | *Visual | | ▲ 5.0 | ▲ 2.0 | NEG |

Customer Id: GEVDOO
 Sample No.: WC0886360
 Lab Number: 06200123
 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|-----------------|--------|------|---------|---|
| Water Drain-off | --- | --- | ? | We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

HISTORICAL DIAGNOSIS

WATER



02 May 2024 Diag: Don Baldrige

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. The iron level is abnormal. There is a moderate amount of visible silt present in the sample. There is a high concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid.

view report



ISO



26 Mar 2024 Diag: Jonathan Hester

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



WATER



27 Feb 2024 Diag: Jonathan Hester

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. The iron level is abnormal. All other component wear rates are normal. There is a moderate concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid.

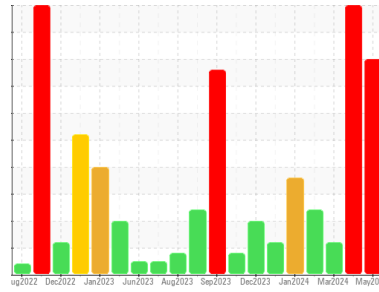
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area

MVD
Machine Id

B-03-411 Pressure Displacement Blower Non-Drive End

Component

Non-Drive End Compressor

Fluid

GARDNER DENVER AEON PD (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count.

Wear

All component wear rates are normal.

▲ Contamination

There is a high concentration of water present in the oil. Excessive free water present.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Sample Number | Client Info | | WC0886360 | WC0886363 | WC0886367 |
| Sample Date | Client Info | | 31 May 2024 | 02 May 2024 | 26 Mar 2024 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | SEVERE | SEVERE | ABNORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|---------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 12 | ▲ 72 | 42 |
| Chromium | ppm | ASTM D5185m >10 | <1 | 8 | 5 |
| Nickel | ppm | ASTM D5185m | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | 0 | 2 | 3 |
| Lead | ppm | ASTM D5185m >25 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >50 | <1 | 2 | 2 |
| Tin | ppm | ASTM D5185m >15 | 2 | 7 | 6 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | 0 | <1 | <1 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|---------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | 0 | 2 | <1 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | <1 |
| Calcium | ppm | ASTM D5185m | 2 | 4 | 4 |
| Phosphorus | ppm | ASTM D5185m | 617 | 600 | 615 |
| Zinc | ppm | ASTM D5185m | 12 | 14 | 8 |
| Sulfur | ppm | ASTM D5185m | 697 | 817 | 675 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|---------|----------|----------|
| Silicon | ppm | ASTM D5185m >25 | 4 | 3 | 4 |
| Sodium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 2 | <1 | <1 |
| Water | % | ASTM D6304 >0.1 | ▲ 1.17 | ▲ 2.43 | --- |
| ppm Water | ppm | ASTM D6304 >1000 | ▲ 11700 | ▲ 24300 | --- |

FLUID CLEANLINESS

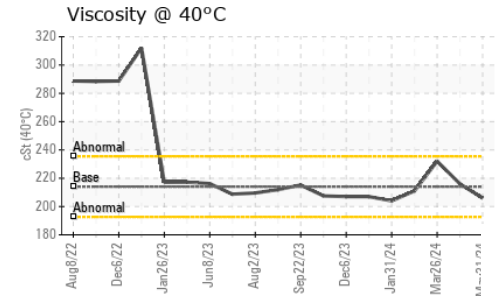
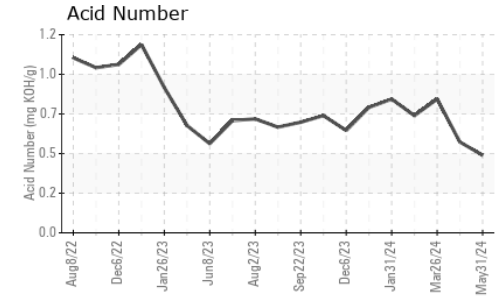
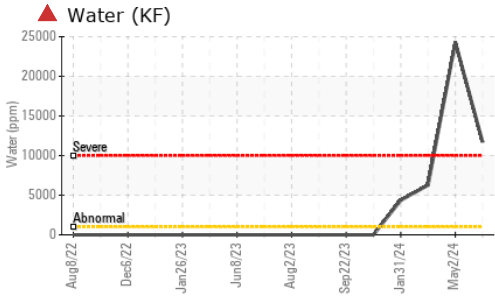
| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|---------|----------|------------|
| Particles >4µm | ASTM D7647 | >10000 | --- | --- | ▲ 214771 |
| Particles >6µm | ASTM D7647 | >2500 | --- | --- | ▲ 45469 |
| Particles >14µm | ASTM D7647 | >320 | --- | --- | 298 |
| Particles >21µm | ASTM D7647 | >80 | --- | --- | 33 |
| Particles >38µm | ASTM D7647 | >20 | --- | --- | 0 |
| Particles >71µm | ASTM D7647 | >4 | --- | --- | 0 |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | --- | --- | ▲ 25/23/15 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|---------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.47 | 0.55 | 0.81 |



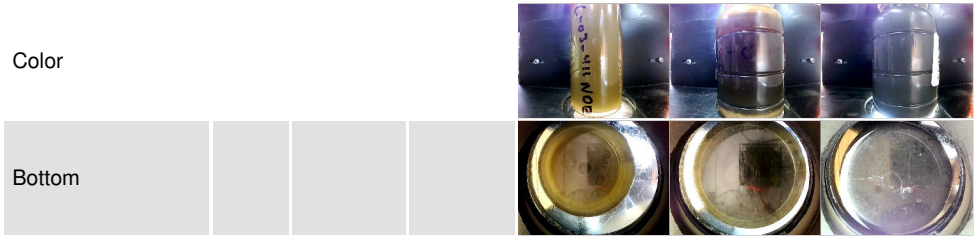
OIL ANALYSIS REPORT



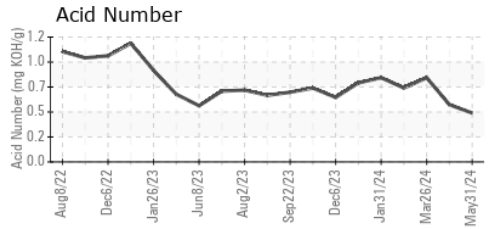
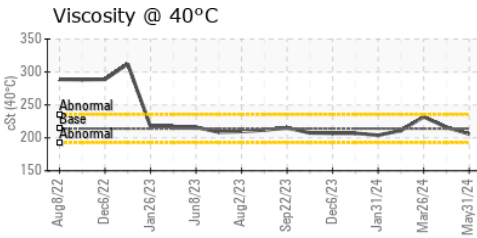
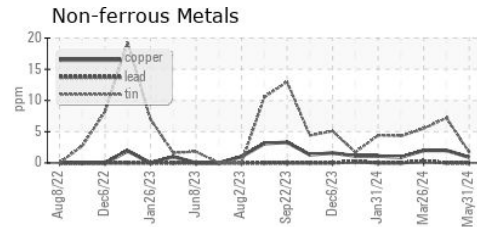
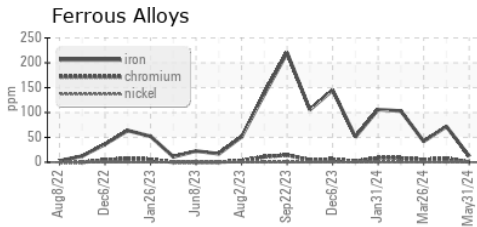
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|-------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | ▲ MODER | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | ● HAZY | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 ▲ 0.2% | ▲ 0.2% | NEG |
| Free Water | scalar | *Visual | ▲ 5.0 | ▲ 2.0 | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 214 | 206 | 216 | 232 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886360
Lab Number : 06200123
Unique Number : 11062246
Test Package : PLANT
Received : 05 Jun 2024
Tested : 07 Jun 2024
Diagnosed : 07 Jun 2024 - Don Baldrige

GEVO Inc.
 2498 250th Street
 Doon, IA
 US 51235
 Contact: Service Manager

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: