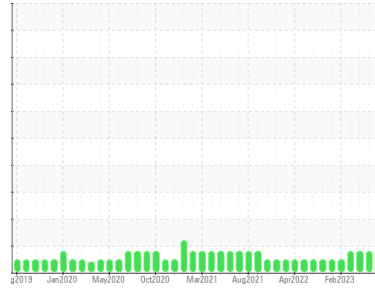




PROBLEM SUMMARY

Sample Rating Trend



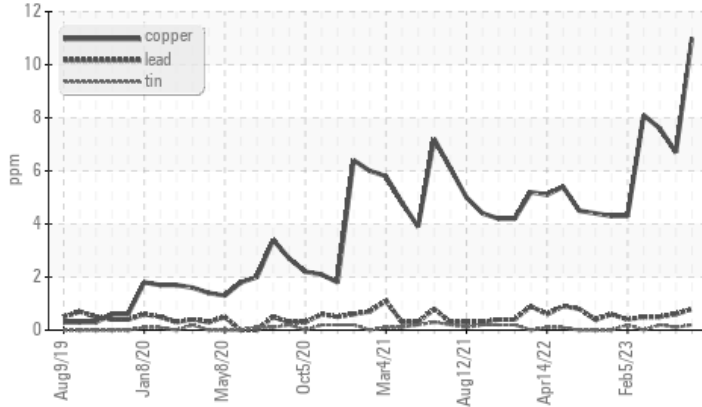
WEAR



Machine Id
CO-GEN #1 (S/N KB5)
Component
Turbine
Fluid
MOBIL JET OIL II (130 GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS

| Sample Status | | ABNORMAL | ABNORMAL | ABNORMAL | |
|---------------|-----|------------------|----------|----------|-----|
| Copper | ppm | ASTM D5185(m) >5 | ▲ 11 | ▲ 7 | ▲ 8 |

Customer Id: AVETOR
Sample No.: WC0781352
Lab Number: 02563131
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|------------------|--------|-------------|---------|---|
| Resample | MISSED | Jul 13 2023 | ? | We recommend an early resample to monitor this condition. |
| Contact Required | --- | --- | ? | Please contact your representative for information regarding the proper sampling kits for your service. |
| Alert | MISSED | Jul 13 2023 | ? | NOTE: We recommend using IND 3 test kits, |

HISTORICAL DIAGNOSIS

09 May 2023 Diag: Kevin Marson

WEAR



We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



06 Apr 2023 Diag: Kevin Marson

WEAR



We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



03 Mar 2023 Diag: Kevin Marson

WEAR



We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Copper ppm levels are abnormal. A sharp increase in the copper level is noted. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

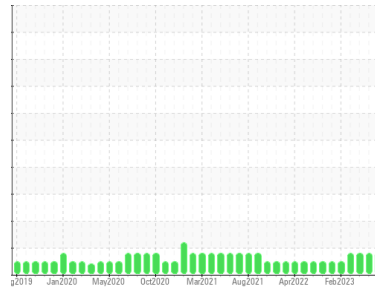
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CO-GEN #1 (S/N KB5)
 Component
Turbine
 Fluid
MOBIL JET OIL II (130 GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Copper ppm levels are abnormal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Fluid Condition

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

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0781352 | WC0781354 | WC0781346 |
| Sample Date | Client Info | | 07 Jun 2023 | 09 May 2023 | 06 Apr 2023 |
| 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 | | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|------------|------------|
| Iron | ppm | ASTM D5185(m) >15 | 1 | <1 | <1 |
| Chromium | ppm | ASTM D5185(m) >4 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) >2 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) >10 | <1 | <1 | 0 |
| Lead | ppm | ASTM D5185(m) | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) >5 | ▲ 11 | ▲ 7 | ▲ 8 |
| Tin | ppm | ASTM D5185(m) >5 | <1 | <1 | <1 |
| Antimony | ppm | ASTM D5185(m) | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | 0 | 0 | 0 |

ADDITIVES

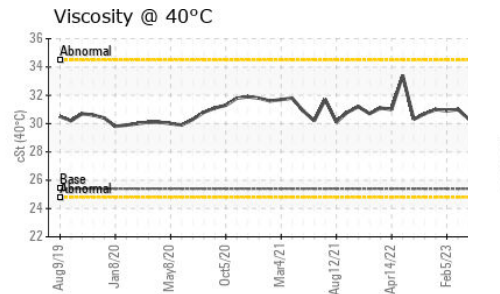
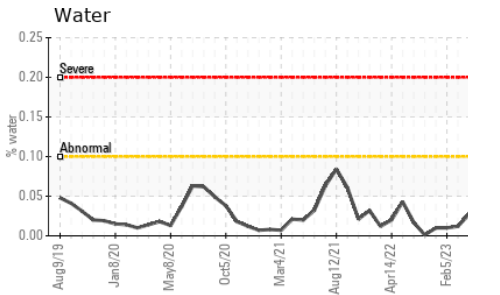
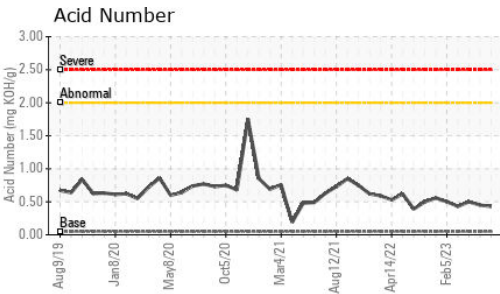
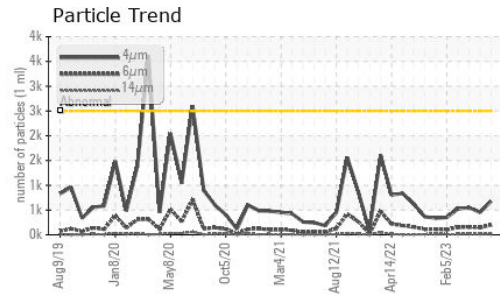
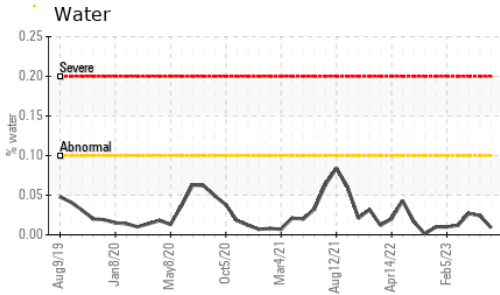
| | method | limit/base | current | history1 | history2 |
|------------|--------|--------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) 0.5 | <1 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) 0.0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) 0.0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) 0.0 | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185(m) 0.0 | 0 | <1 | 2 |
| Calcium | ppm | ASTM D5185(m) 0.0 | 0 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185(m) 3039 | 1902 | 1873 | 1914 |
| Zinc | ppm | ASTM D5185(m) 0.3 | <1 | <1 | 2 |
| Sulfur | ppm | ASTM D5185(m) 38 | 7 | 2 | 14 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >15 | <1 | <1 | 0 |
| Sodium | ppm | ASTM D5185(m) | <1 | <1 | <1 |
| Potassium | ppm | ASTM D5185(m) >20 | <1 | <1 | 0 |
| Water | % | ASTM D6304* >.1 | 0.009 | 0.024 | 0.027 |
| ppm Water | ppm | ASTM D6304* >1000 | 99.8 | 240.4 | 277.0 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >2500 | 679 | 453 | 550 |
| Particles >6µm | ASTM D7647 | >640 | 201 | 143 | 157 |
| Particles >14µm | ASTM D7647 | >80 | 18 | 12 | 18 |
| Particles >21µm | ASTM D7647 | >20 | 5 | 3 | 5 |
| Particles >38µm | ASTM D7647 | >4 | 0 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13 | 17/15/11 | 16/14/11 | 16/14/11 |



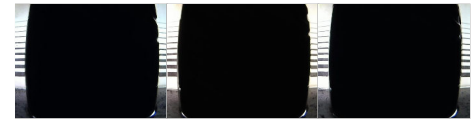
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.05 | 0.43 | 0.45 | 0.50 |

| 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 | NONE | NONE | NONE |
| 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* | >.1 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 25.4 | 30.3 | 30.3 | 30.3 |

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

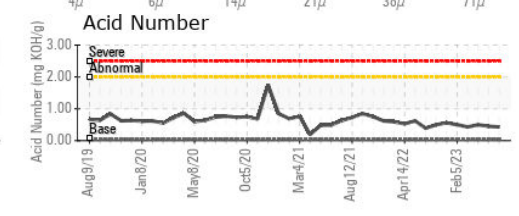
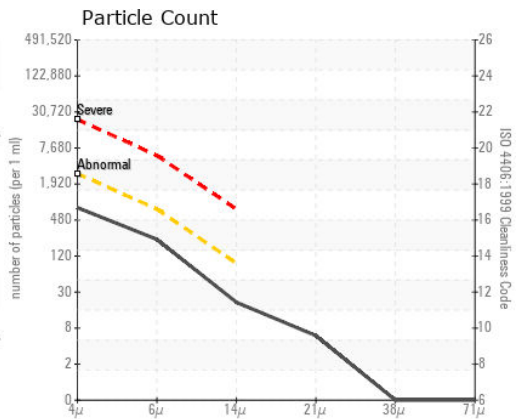
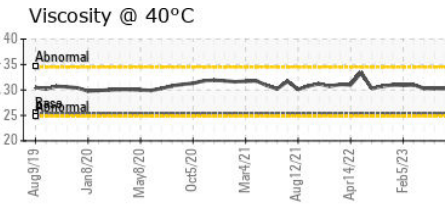
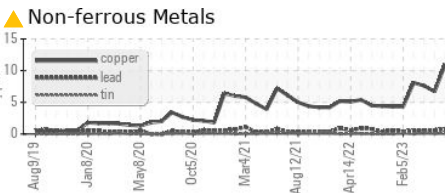
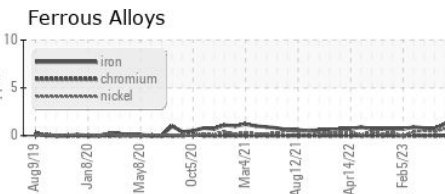
Color



Bottom



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC0781352
 Lab Number : 02563131
 Unique Number : 5592172
 Test Package : IND 2

Received : 09 Jun 2023
 Diagnosed : 12 Jun 2023
 Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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 F: (416)667-2720