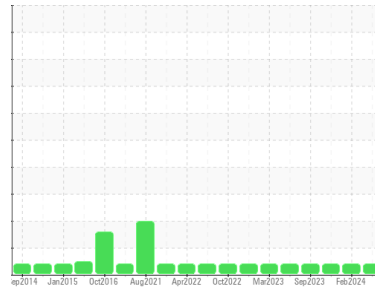




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area

Compressors [413819047]

Machine Id
FES #2 Ammonia Compressor - Maximo #3548 1000032175 (S/N 3622-130)

Component
Screw Compressor

Fluid
MOBIL GARGOYLE ARTIC 300 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 100 range, advise investigate. 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 | WC0910704 | WC0904606 | WC0882224 |
| Sample Date | Client Info | 13 May 2024 | 19 Feb 2024 | 27 Nov 2023 |
| Machine Age | kms Client Info | 0 | 0 | 0 |
| Oil Age | kms 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 |
|-----------|-----------------------|--------------|----------|----------|
| PQ | ASTM D8184* | 0 | 0 | 0 |
| Iron | ppm ASTM D5185(m) >60 | 2 | 1 | 1 |
| Chromium | ppm ASTM D5185(m) >4 | 0 | 0 | 0 |
| Nickel | ppm ASTM D5185(m) | <1 | 0 | 0 |
| Titanium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Aluminum | ppm ASTM D5185(m) >5 | 0 | <1 | 0 |
| Lead | ppm ASTM D5185(m) >10 | 0 | 0 | <1 |
| Copper | ppm ASTM D5185(m) >30 | <1 | 0 | <1 |
| Tin | ppm ASTM D5185(m) >15 | 0 | 0 | 0 |
| Antimony | ppm ASTM D5185(m) | 0 | 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 | 0 | <1 |
| Barium | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Molybdenum | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Manganese | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Magnesium | ppm ASTM D5185(m) | 0 | <1 | 0 |
| Calcium | ppm ASTM D5185(m) | <1 | 0 | <1 |
| Phosphorus | ppm ASTM D5185(m) | <1 | 0 | 0 |
| Zinc | ppm ASTM D5185(m) | 3 | 2 | 2 |
| Sulfur | ppm ASTM D5185(m) | 177 | 180 | 191 |
| Lithium | ppm ASTM D5185(m) | <1 | <1 | <1 |

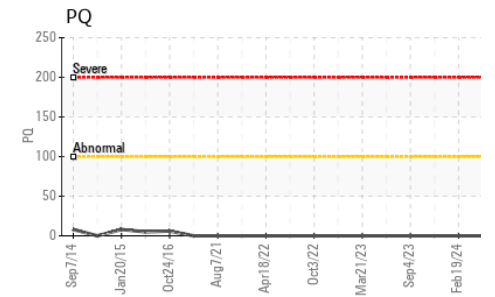
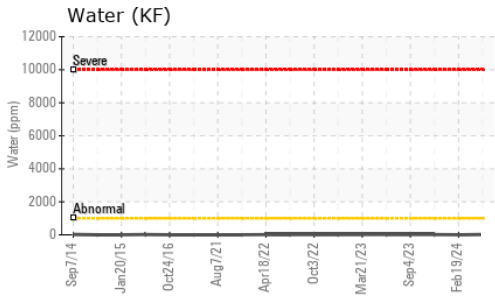
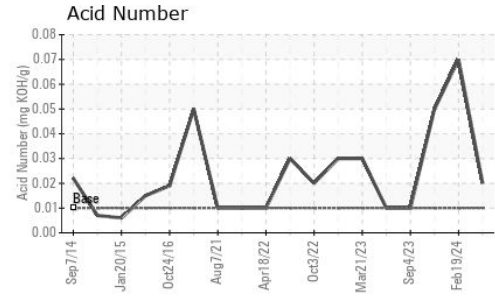
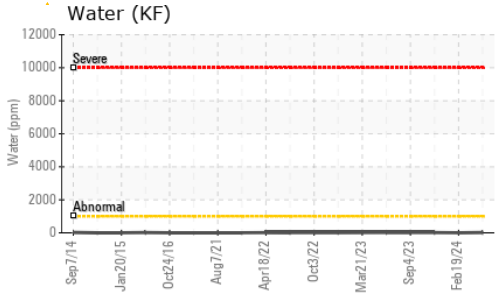
CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185(m) >50 | 0 | 0 | 0 |
| Sodium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Potassium | ppm ASTM D5185(m) >20 | 0 | <1 | 0 |
| Water | % ASTM D6304* >0.1 | 0.002 | 0.00 | 0.001 |
| ppm Water | ppm ASTM D6304* >1000 | 19 | 0 | 13 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|------------------|--------------------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g ASTM D974* 0.01 | 0.02 | 0.07 | 0.05 |

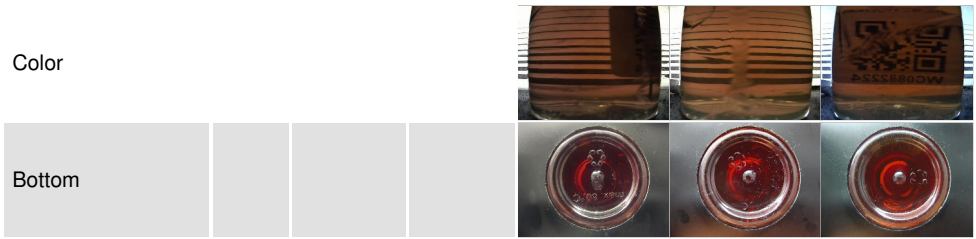
OIL ANALYSIS REPORT



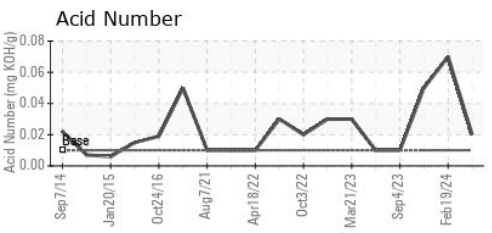
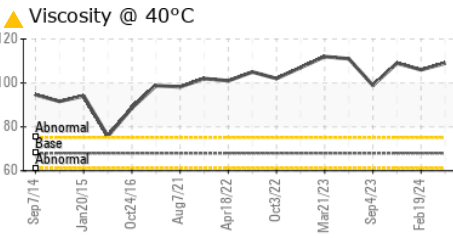
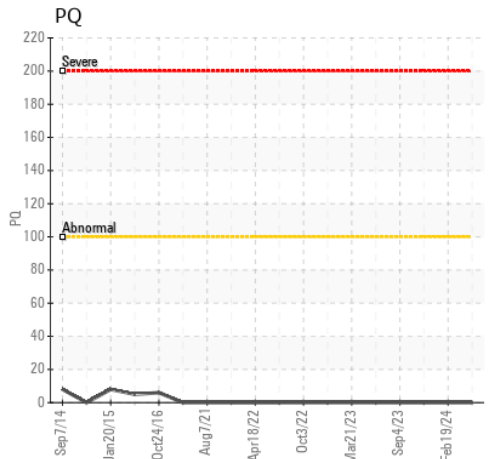
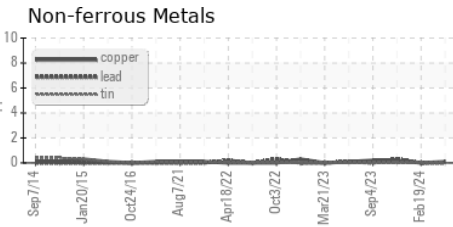
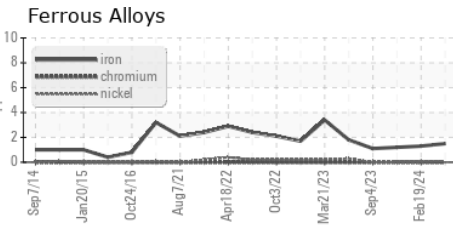
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 68.0 ▲ 109 | ▲ 106 | ▲ 109 |

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



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0910704 **Received** : 16 Jul 2024
Lab Number : 02648160 **Tested** : 19 Jul 2024
Unique Number : 5813712 **Diagnosed** : 19 Jul 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, TAN Man)

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 T: (519)823-5200
 F: (519)823-5893

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.