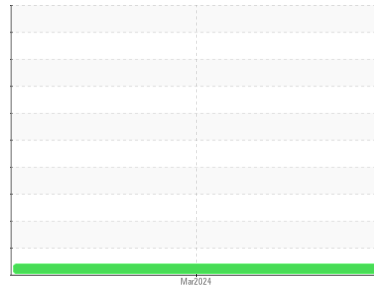




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
CARRIER HK #2A
 Component
Screw Compressor
 Fluid
CASTROL ICEMATIC SW 220 (--- 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 68 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info | | WC0920228 | --- | --- |
| Sample Date | Client Info | | 28 Mar 2024 | --- | --- |
| Machine Age | hrs | Client Info | 0 | --- | --- |
| Oil Age | hrs | Client Info | 0 | --- | --- |
| Oil Changed | Client Info | | N/A | --- | --- |
| Sample Status | | | ABNORMAL | --- | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|-------------|-------------------|--------------|----------|----------|
| PQ | ASTM D8184* | | 0 | --- | --- |
| Iron | ppm | ASTM D5185(m) >60 | 2 | --- | --- |
| Chromium | ppm | ASTM D5185(m) >4 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | 0 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) >5 | 0 | --- | --- |
| Lead | ppm | ASTM D5185(m) >10 | 0 | --- | --- |
| Copper | ppm | ASTM D5185(m) >30 | <1 | --- | --- |
| Tin | ppm | ASTM D5185(m) >15 | 0 | --- | --- |
| Antimony | ppm | ASTM D5185(m) | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Beryllium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185(m) | 0 | --- | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) 1 | 1 | --- | --- |
| Barium | ppm | ASTM D5185(m) 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) 0 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185(m) 0 | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) 0 | 0 | --- | --- |
| Calcium | ppm | ASTM D5185(m) 0 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) 40 | 11 | --- | --- |
| Zinc | ppm | ASTM D5185(m) 0 | <1 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) 2 | 11 | --- | --- |
| Lithium | ppm | ASTM D5185(m) | <1 | --- | --- |

CONTAMINANTS

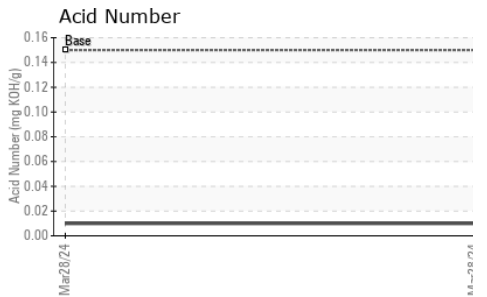
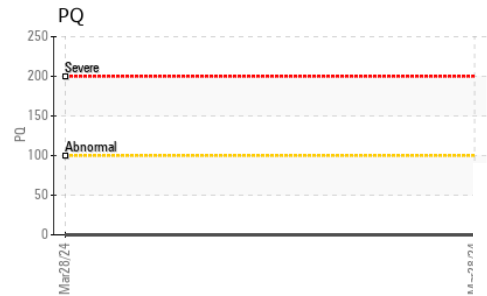
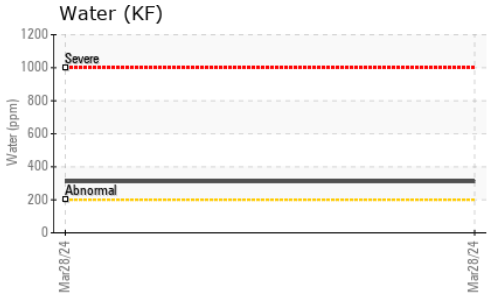
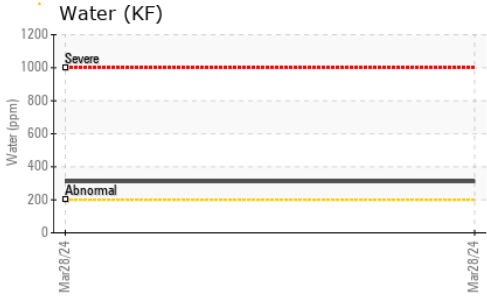
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >50 | 1 | --- | --- |
| Sodium | ppm | ASTM D5185(m) | <1 | --- | --- |
| Potassium | ppm | ASTM D5185(m) >20 | <1 | --- | --- |
| Water | % | ASTM D6304* | 0.031 | --- | --- |
| ppm Water | ppm | ASTM D6304* | 311 | --- | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* 0.15 | 0.01 | --- | --- |



OIL ANALYSIS REPORT



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

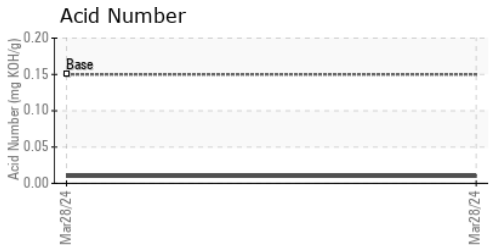
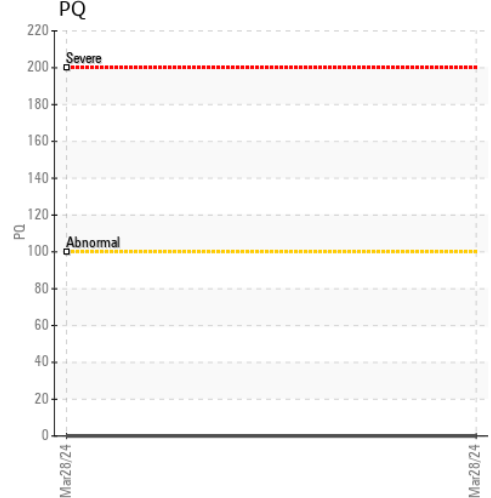
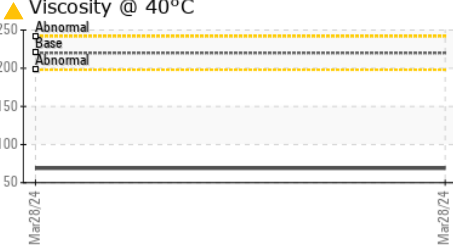
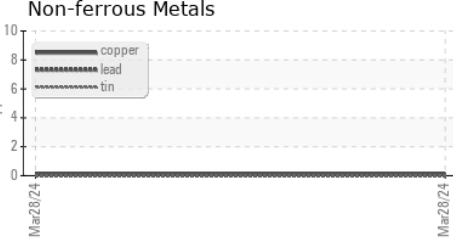
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 220 ▲ 69.0 | --- | --- |

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

Color

| | | |
|---------------|----------|----------|
| | no image | no image |
| Bottom | | no image |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0920228 **Received** : 18 Apr 2024
Lab Number : 02629932 **Tested** : 22 Apr 2024
Unique Number : 5763064 **Diagnosed** : 22 Apr 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, TAN Man)

Constant Environmental Supply
 555 Main Street East; Unit 14
 Milton, ON
 CA L9T 3J2
 Contact: Karl Wiebe
 karl.wiebe@htpg.ca
 T: (905)878-4912
 F: (905)878-2812

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.