



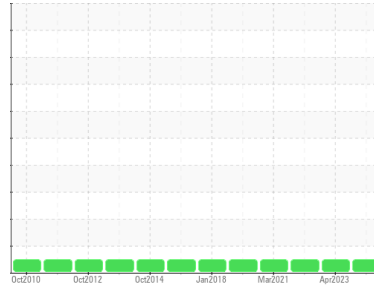
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Queens Univ. Botterall #2
 Machine Id
CARRIER 1107Q73744
 Component
Chiller
 Fluid
REFRIGERATION OIL (POE) (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

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

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 | | GTT0001424 | GTT4133 | GTT4134 |
| Sample Date | Client Info | | 08 Sep 2023 | 05 Apr 2023 | 30 Dec 2021 |
| Machine Age | hrs | Client Info | 0 | --- | --- |
| Oil Age | hrs | Client Info | 0 | --- | --- |
| Oil Changed | | Client Info | N/A | N/A | N/A |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) >8 | <1 | <1 | <1 |
| Chromium | ppm | ASTM D5185(m) >2 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | <1 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) >3 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) >2 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) >8 | <1 | 1 | 1 |
| Tin | ppm | ASTM D5185(m) >4 | 0 | <1 | <1 |
| 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) 0 | 0 | --- | --- |
| 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 | <1 | --- | --- |
| Calcium | ppm | ASTM D5185(m) 10 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) 250 | 983 | --- | --- |
| Zinc | ppm | ASTM D5185(m) 0 | 2 | 1 | 1 |
| Sulfur | ppm | ASTM D5185(m) 400 | 16 | --- | --- |
| Lithium | ppm | ASTM D5185(m) | <1 | --- | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >15 | 19 | --- | --- |
| Sodium | ppm | ASTM D5185(m) | <1 | --- | --- |
| Potassium | ppm | ASTM D5185(m) >20 | 1 | --- | --- |
| ppm Water | ppm | ASTM D6304* >200 | 176 | 235 | 205 |



FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* 0.07 | 0.10 | 0.094 | 0.116 |

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 | NONE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | NORML | NORML | --- | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 53.8 | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---|----------|----------|
| Color | | |  | no image | no image |
| Bottom | | |  | no image | no image |

GRAPHS



Sample No. : GTT0001424 **Recieved** : 03 Jan 2024
Lab Number : **02606358** **Diagnosed** : 09 Jan 2024
Unique Number : 5707444 **Diagnostician** : Bill Quesnel
Test Package : IND 2 (Additional Tests: KV40)

To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26.

Test denoted () outside scope of accreditation, (m) method modified, (e) tested at external lab.*

Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.

Carrier Commerical Service
 C/O Conduent Div of Carrier Canada, 1-2740 Matheson Blvd
 Mississauga, ON
 CA L4W 4X3
 Contact: Brian Raymundo
 Brian.Raymundo@carrier.com

T:
F: