



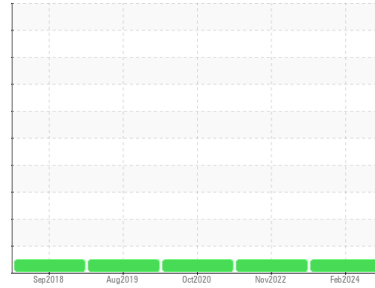
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
175 Laurier Ch#1 [287481]
 Machine Id
TRANE N02F09733
 Component
Chiller
 Fluid
REFRIG COMP OIL ISO 68 (--- 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 | | GTT0002145 | GTT57460 | GTT57461 |
| Sample Date | Client Info | | 09 Feb 2024 | 23 Nov 2022 | 09 Oct 2020 |
| 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 | 3 | <1 | 2 |
| 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 | 0 | <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) 5 | 0 | --- | --- |
| Barium | ppm | ASTM D5185(m) 5 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) 5 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) 5 | <1 | --- | --- |
| Calcium | ppm | ASTM D5185(m) 12 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) 12 | 0 | --- | --- |
| Zinc | ppm | ASTM D5185(m) 12 | <1 | <1 | <1 |
| Sulfur | ppm | ASTM D5185(m) 1000 | 0 | --- | --- |
| Lithium | ppm | ASTM D5185(m) | <1 | --- | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >15 | 25 | --- | --- |
| Sodium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Potassium | ppm | ASTM D5185(m) >20 | <1 | --- | --- |
| ppm Water | ppm | ASTM D6304* >100 | 8 | 10 | 21 |



FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* 0.10 | 0.07 | 0.003 | 0.023 |

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) | 68 | 61.5 | --- |

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

GRAPHS



Sample No. : GTT0002145
Lab Number : 02621011
Unique Number : 5746130
Test Package : IND 2 (Additional Tests: KV40)
Received : 08 Mar 2024
Tested : 11 Mar 2024
Diagnosed : 11 Mar 2024 - Bill Quesnel

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.

Modern Niagara Building Services

85 Denzil Doyle Ct
Kanata, ON
CA K2M 2G8

Contact: Service Manager

T:
F: