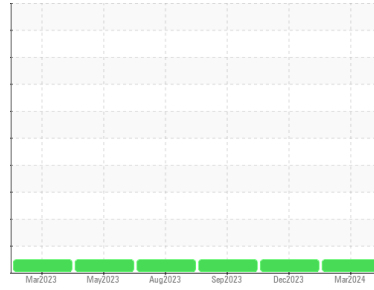




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

(C-FKEX)

Machine Id

[C-FKEX] BEECHCRAFT KING AIR B200 PCE-PJ0150

Component

Left Jet Turbine

Fluid

BP TURBO OIL 2380 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

Contaminants

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

Oil 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 | | WC0893720 | WC0798261 | WC0850512 |
| Sample Date | Client Info | | 23 Mar 2024 | 13 Dec 2023 | 22 Sep 2023 |
| TSN | hrs | Client Info | 11826 | 11612 | 11415 |
| TSO | hrs | Client Info | 1117 | 903 | 706 |
| Oil Age | hrs | Client Info | 1117 | 0 | 0 |
| Oil Changed | | Client Info | Not Chngd | Not Chngd | N/A |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|---------------|---------|--------------|----------|
| Iron | ppm | ASTM D5185(m) | >8 | 0 | 0 |
| Chromium | ppm | ASTM D5185(m) | >2 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >2 | 0 | 0 |
| Lead | ppm | ASTM D5185(m) | >3 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >3 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >2 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|---------------|---------|--------------|----------|
| Boron | ppm | ASTM D5185(m) | 0 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 0 | <1 | 0 |
| Calcium | ppm | ASTM D5185(m) | 0 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185(m) | 2500 | 2632 | 2700 |
| Zinc | ppm | ASTM D5185(m) | 0 | <1 | <1 |
| Sulfur | ppm | ASTM D5185(m) | 0 | 4 | 4 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 |

CONTAMINANTS

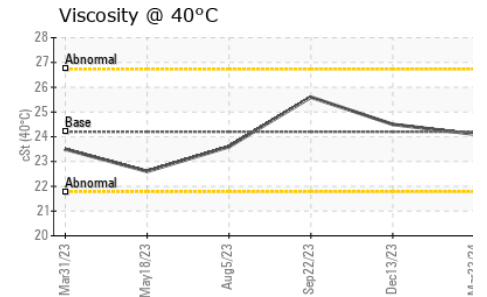
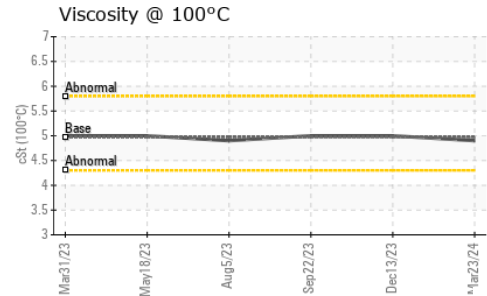
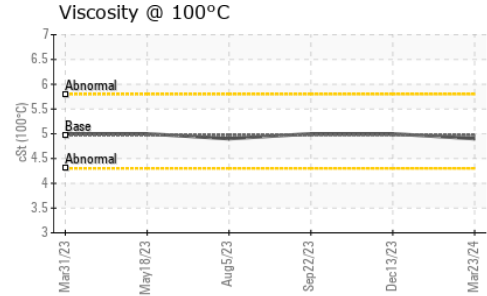
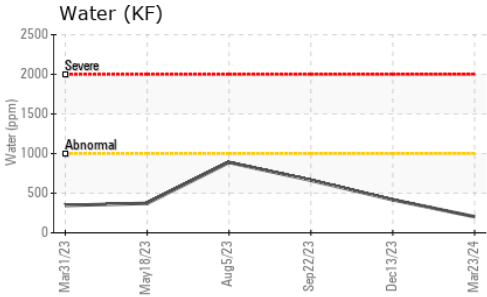
| | method | limit/base | current | history1 | history2 |
|-----------|--------|---------------|---------|--------------|----------|
| Silicon | ppm | ASTM D5185(m) | >8 | 0 | <1 |
| Sodium | ppm | ASTM D5185(m) | | 0 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 0 |
| Water | % | ASTM D6304* | >0.1 | 0.020 | 0.041 |
| ppm Water | ppm | ASTM D6304* | >1000 | 203 | 417 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|---------|-------------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.43 | 0.34 | 0.39 |



OIL ANALYSIS REPORT

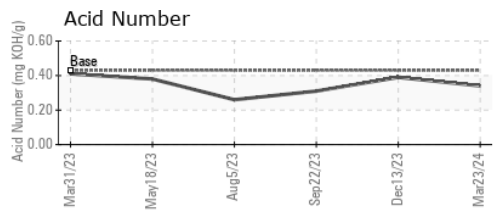
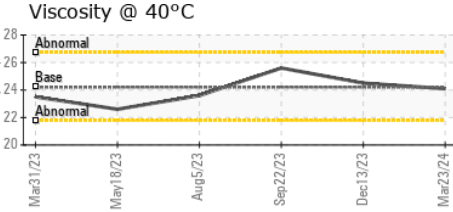
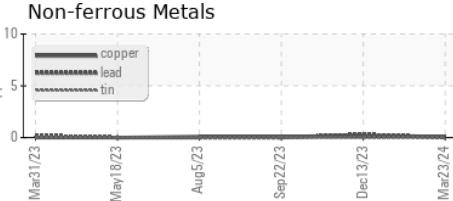
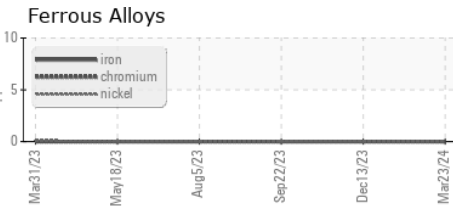


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | 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) | 24.2 | 24.5 | 25.6 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 4.9 | 5 | 5 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 134 | 133 | 123 |

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0893720
Lab Number : 02627302
Unique Number : 5760434
Test Package : AVI 3

Received : 08 Apr 2024
Tested : 11 Apr 2024
Diagnosed : 11 Apr 2024 - Kevin Marson

Keewatin Air LP
 50 Morberg Way
 Winnipeg, MB
 CA R3H 0A4
 Contact: Heather Karavas
 hkaravas@keewatinair.ca
 T: (204)888-0100
 F: (204)888-5791

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.

FERROGRAPHY REPORT

Area
(C-FKEX)
 Machine Id
[C-FKEX] BEECHCRAFT KING AIR B200 PCE-PJ0150
 Component
Left Jet Turbine
 Fluid
BP TURBO OIL 2380 (--- GAL)

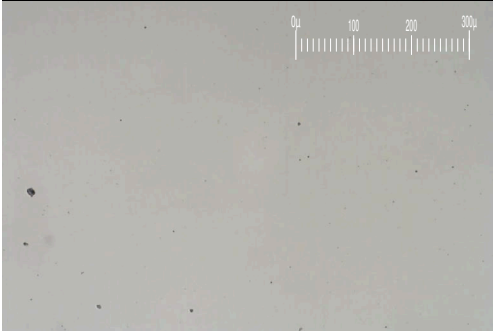
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

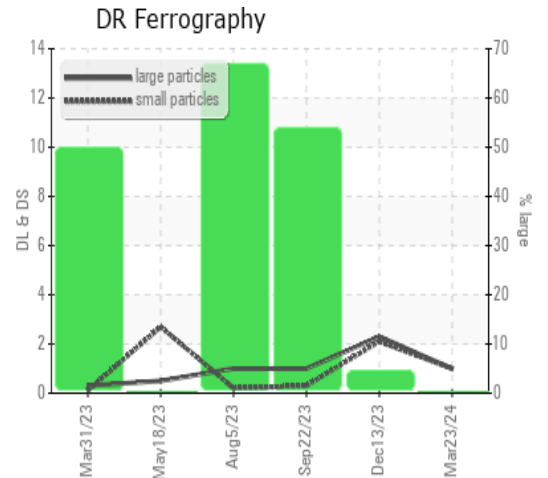


| DR-FERROGRAPHY | | method | limit/base | current | history1 | history2 |
|----------------------------|---|----------|------------|---------|----------|----------|
| Large Particles | | DR-Ferr* | | 1.0 | 2.3 | 1.0 |
| Small Particles | | DR-Ferr* | | 1.0 | 2.1 | 0.3 |
| Total Particles | | DR-Ferr* | >--- | 2 | 4.4 | 1.3 |
| Large Particles Percentage | % | DR-Ferr* | | 0 | 4.5 | 53.8 |
| Severity Index | | DR-Ferr* | | 0 | 0 | 1 |

| FERROGRAPHY | | method | limit/base | current | history1 | history2 |
|-----------------------|------------|-------------|------------|---------|----------|----------|
| Ferrous Rubbing | Scale 0-10 | ASTM D7684* | | 1 | 1 | 1 |
| Ferrous Sliding | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Cutting | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Rolling | Scale 0-10 | ASTM D7684* | | 1 | 1 | 1 |
| Ferrous Break-in | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Spheres | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Black Oxides | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Red Oxides | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Corrosive | Scale 0-10 | ASTM D7684* | | | | |
| Ferrous Other | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Rubbing | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Sliding | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Cutting | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Rolling | Scale 0-10 | ASTM D7684* | | | | |
| Nonferrous Other | Scale 0-10 | ASTM D7684* | | | | |
| Carbonaceous Material | Scale 0-10 | ASTM D7684* | | | | |
| Lubricant Degradation | Scale 0-10 | ASTM D7684* | | | | |
| Sand/Dirt | Scale 0-10 | ASTM D7684* | | 1 | 1 | |
| Fibres | Scale 0-10 | ASTM D7684* | | | | |
| Spheres | Scale 0-10 | ASTM D7684* | | | | |
| Other | Scale 0-10 | ASTM D7684* | | 1 | 1 | 1 |

WEAR

All component wear rates are normal.
 The ferrography results are normal indicating no abnormal wear in the system.



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