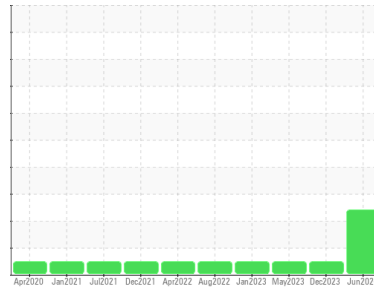




OIL ANALYSIS REPORT

Sample Rating Trend



Area
(CFHPB)
 Machine Id
[C-FHPB] BEECHCRAFT B300 KING AIR PCE-95426
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (13 LTR)

DIAGNOSIS

Recommendation
 Check seals and/or filters for points of contaminant entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Wear
 Wear particle analysis indicates that the ferrous rubbing particles are marginal. All other component wear rates are normal.

Contaminants
 Elemental level of silicon (Si) above normal indicating ingress of seal material and/or dirt. The water content is negligible.

Oil Condition
 The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0950223	WC0882233	WC0817299
Sample Date	Client Info		05 Jun 2024	04 Dec 2023	24 May 2023
TSN	hrs	Client Info	10790	10602	7446
TSO	hrs	Client Info	3344	3156	2935
Oil Age	hrs	Client Info	0	0	0
Oil Changed		Client Info	N/A	Not Changd	Not Changd
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	0	0	<1
Chromium	ppm	ASTM D5185(m) >2	0	0	0
Nickel	ppm	ASTM D5185(m) >2	0	<1	0
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	<1	0
Aluminum	ppm	ASTM D5185(m) >2	0	0	0
Lead	ppm	ASTM D5185(m) >3	0	<1	0
Copper	ppm	ASTM D5185(m) >3	0	<1	0
Tin	ppm	ASTM D5185(m) >2	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	<1
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	<1	<1	<1
Barium	ppm	ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	<1	<1	<1
Calcium	ppm	ASTM D5185(m) 0	0	0	0
Phosphorus	ppm	ASTM D5185(m) 2500	2472	2340	2354
Zinc	ppm	ASTM D5185(m) 0	<1	<1	<1
Sulfur	ppm	ASTM D5185(m) 0	2	43	6
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >8	▲ 8	<1	3
Sodium	ppm	ASTM D5185(m)	0	<1	<1
Potassium	ppm	ASTM D5185(m) >20	0	<1	<1
Water	%	ASTM D6304* >0.1	0.057	0.015	0.030
ppm Water	ppm	ASTM D6304* >1000	571	151	307.1

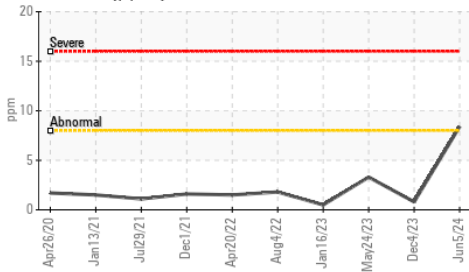
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.43	0.27	0.29	0.27

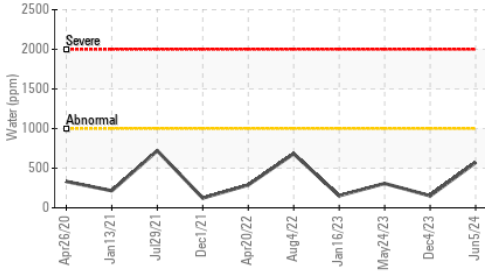


OIL ANALYSIS REPORT

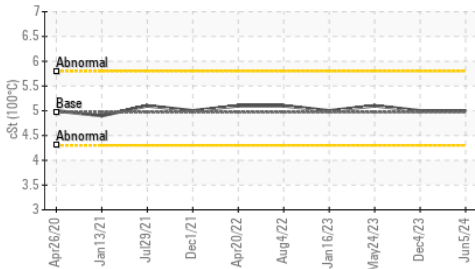
▲ Silicon (ppm)



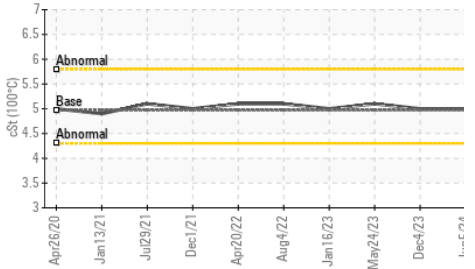
Water (KF)



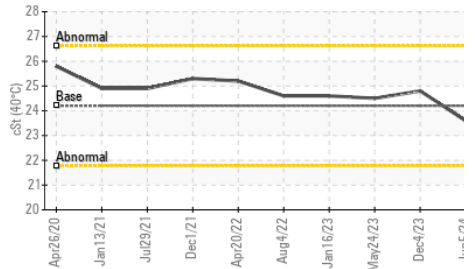
Viscosity @ 100°C



Viscosity @ 100°C



Viscosity @ 40°C

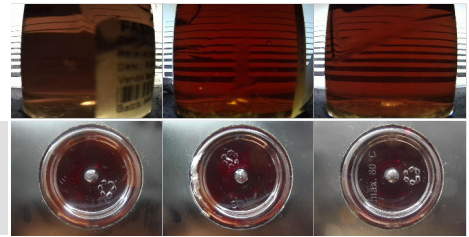


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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	23.6	24.8
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5.0	5
Viscosity Index (VI)	Scale	ASTM D2270*	134	143	130

SAMPLE IMAGES	method	limit/base	current	history1	history2
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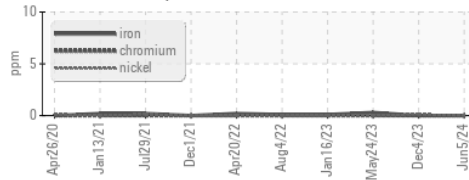
Color



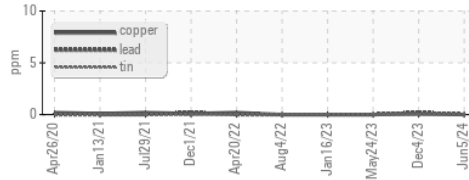
Bottom

GRAPHS

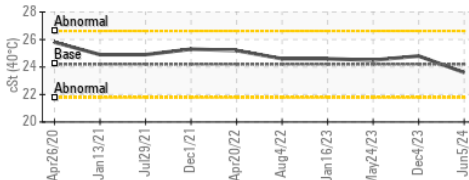
Ferrous Alloys



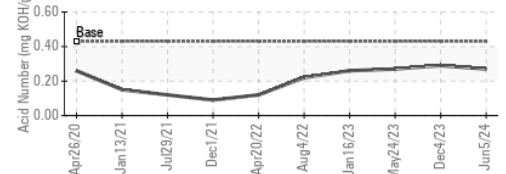
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0950223
Lab Number : 02641394
Unique Number : 5798933
Test Package : AVI 3

Received : 12 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 2024 - Kevin Marson

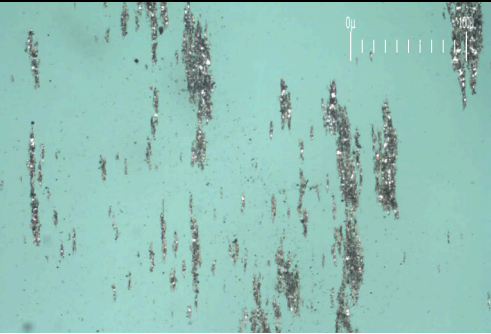
FAST AIR LTD
 80 HANGAR LINE ROAD
 WINNIPEG, MB
 CA R3J 3Y7
 Contact: Denis Bourgouin
 denis.bourgouin@flyfastair.com
 T: (204)772-7622
 F: (204)783-2483

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
(CFHPB)
 Machine Id
[C-FHPB] BEECHCRAFT B300 KING AIR PCE-95426
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (13 LTR)

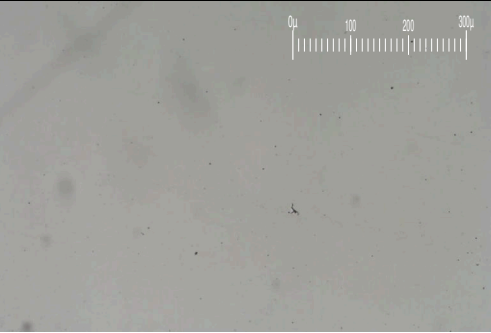
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW



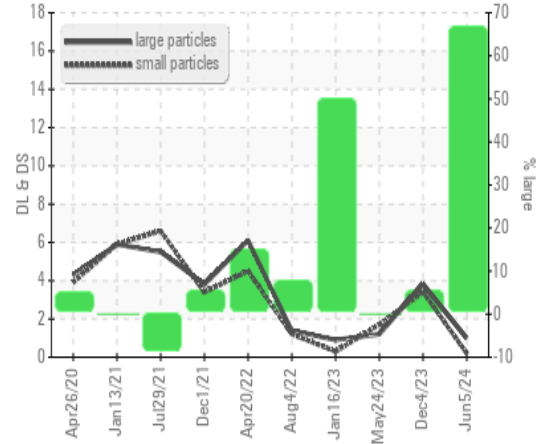
DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		1.0	3.8	1.2
Small Particles		DR-Ferr*		0.2	3.4	1.7
Total Particles		DR-Ferr*	>---	1.2	7.2	2.9
Large Particles Percentage	%	DR-Ferr*		66.7	5.6	0
Severity Index		DR-Ferr*		1	2	1

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		▲ 3	■ 1	■ 2
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*				■ 1
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	■ 1
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		■ 1	■ 1	

WEAR

Wear particle analysis indicates that the ferrous rubbing particles are marginal. All other component wear rates are normal.

DR Ferrography



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