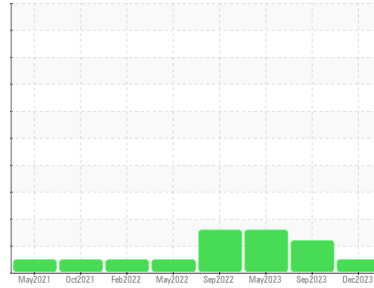




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(C-GMNM)
 Machine Id
[C-GMNM] BEEHCRAFT KINGAIR BEB200 PCE-94301
 Component
Left Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (12 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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		WC0882232	WC0852085	WC0817296
Sample Date	Client Info		01 Dec 2023	28 Sep 2023	15 May 2023
TSN	hrs	Client Info	12094	11963	10696
TSO	hrs	Client Info	1719	1587	1387
Oil Age	hrs	Client Info	1719	1587	1387
Oil Changed		Client Info	N/A	N/A	Not Changd
Sample Status			NORMAL	MARGINAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	0	0	0
Chromium	ppm	ASTM D5185(m) >2	0	0	0
Nickel	ppm	ASTM D5185(m) >2	<1	0	0
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >2	0	<1	0
Lead	ppm	ASTM D5185(m) >3	<1	0	0
Copper	ppm	ASTM D5185(m) >3	<1	<1	0
Tin	ppm	ASTM D5185(m) >2	0	0	<1
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	<1	<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	0	0	0
Calcium	ppm	ASTM D5185(m) 0	0	<1	0
Phosphorus	ppm	ASTM D5185(m) 2500	2611	2572	2607
Zinc	ppm	ASTM D5185(m) 0	<1	2	1
Sulfur	ppm	ASTM D5185(m) 0	27	4	2
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

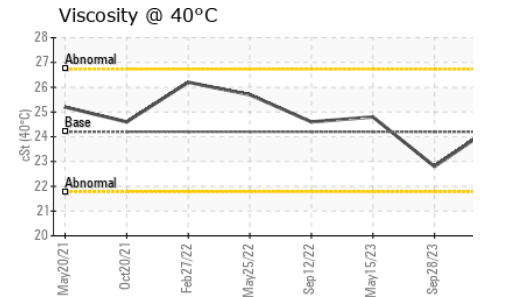
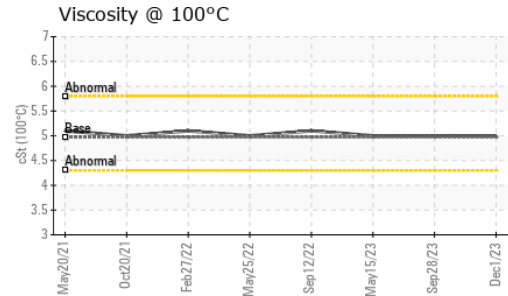
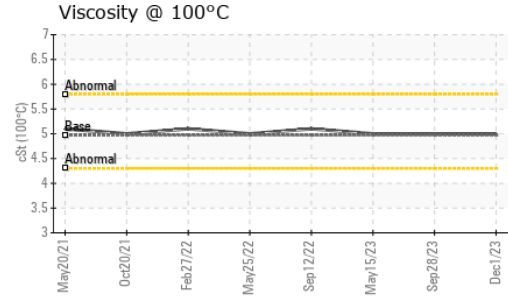
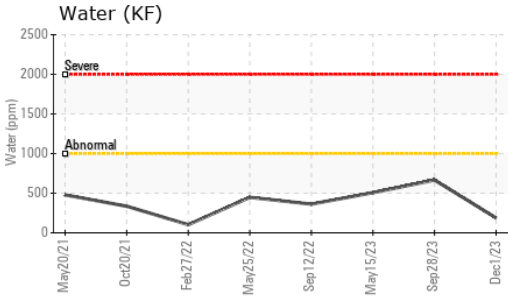
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >8	2	4	▲ 11
Sodium	ppm	ASTM D5185(m)	<1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	0	0	0
Water	%	ASTM D6304* >0.1	0.018	0.066	0.050
ppm Water	ppm	ASTM D6304* >1000	188	666.4	507.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.43	0.40	0.29	0.33



OIL ANALYSIS REPORT

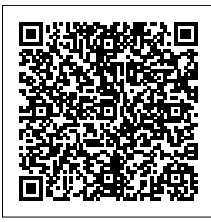
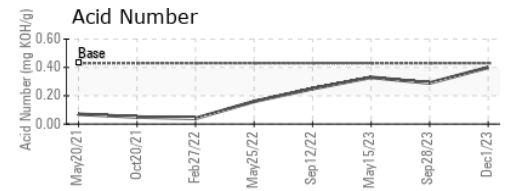
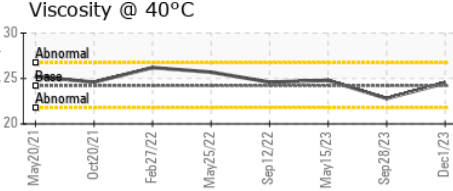
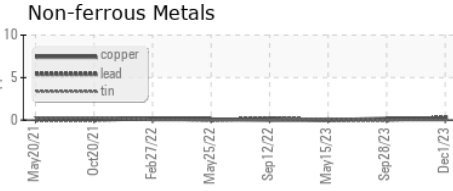
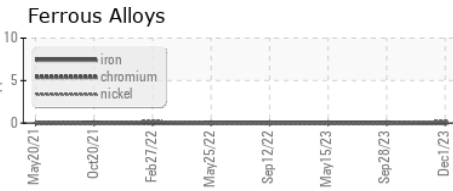


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	▲ VLITE NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE NONE
Silt	scalar	Visual*	NONE	NONE	NONE NONE
Debris	scalar	Visual*	NONE	NONE	NONE NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE NONE
Appearance	scalar	Visual*	NORML	NORML	NORML NORML
Odor	scalar	Visual*	NORML	NORML	NORML NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG NEG
Free Water	scalar	Visual*		NEG	NEG NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	24.5	22.8 24.8
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5	5 5
Viscosity Index (VI)	Scale	ASTM D2270*	134	133	152 130

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter					

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0882232 **Received** : 11 Dec 2023
Lab Number : 02602336 **Diagnosed** : 14 Dec 2023
Unique Number : 5695421 **Diagnostician** : Kevin Marson
Test Package : AVI 3

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

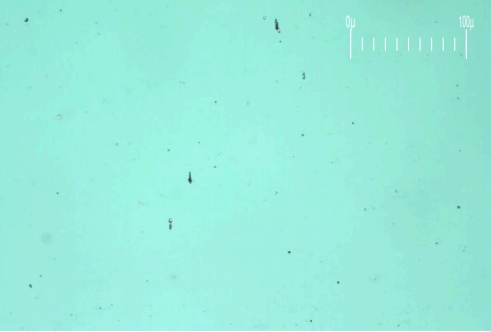
To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.



FERROGRAPHY REPORT

Area
(C-GMNM)
 Machine Id
[C-GMNM] BEEHCRAFT KINGAIR BEB200 PCE-94301
 Component
Left Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (12 QTS)

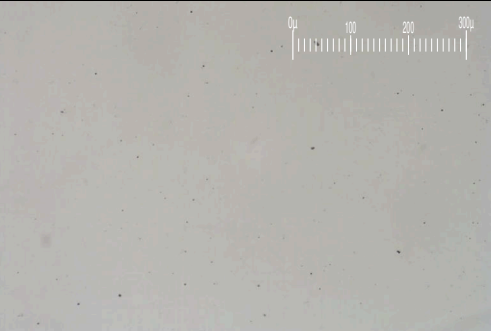
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

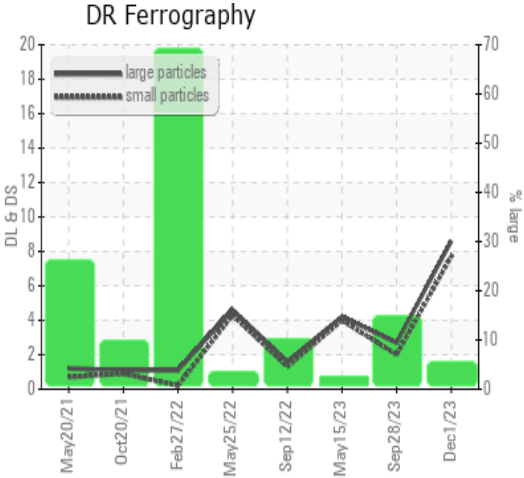


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		8.6	2.7	4.2
Small Particles		DR-Ferr*		7.7	2.0	4.0
Total Particles		DR-Ferr*	>---	16.3	4.7	8.2
Large Particles Percentage	%	DR-Ferr*		5.5	14.9	2.4
Severity Index		DR-Ferr*		8	2	1

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		1	2	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	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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