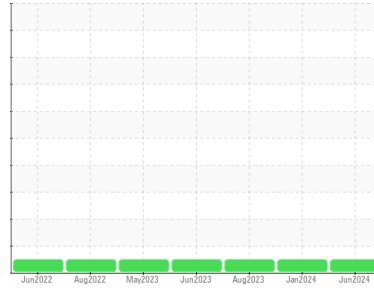




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

(C-GOFB)

Machine Id

[C-GOFB] DEHAVILLAND DHC-3T OTTER PCE-RB1236

Component

Jet Turbine

Fluid

EASTMAN 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		WC0944078	WC0635701	WC0718633
Sample Date	Client Info		20 Jun 2024	22 Jan 2024	02 Aug 2023
TSN	hrs	Client Info	977	0	0
TSO	hrs	Client Info	977	0	0
Oil Age	hrs	Client Info	100	0	0
Oil Changed		Client Info	Not Changed	N/A	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

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	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	0	0
Aluminum	ppm	ASTM D5185(m) >2	<1	<1	<1
Lead	ppm	ASTM D5185(m) >3	0	0	0
Copper	ppm	ASTM D5185(m) >3	<1	0	0
Tin	ppm	ASTM D5185(m) >2	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
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	0	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	0	<1
Calcium	ppm	ASTM D5185(m) 0	0	0	<1
Phosphorus	ppm	ASTM D5185(m) 2500	2648	2768	2842
Zinc	ppm	ASTM D5185(m) 0	<1	<1	2
Sulfur	ppm	ASTM D5185(m) 0	3	0	<1
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

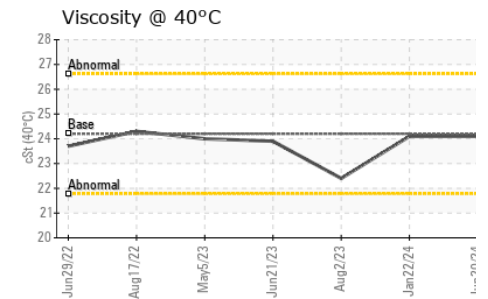
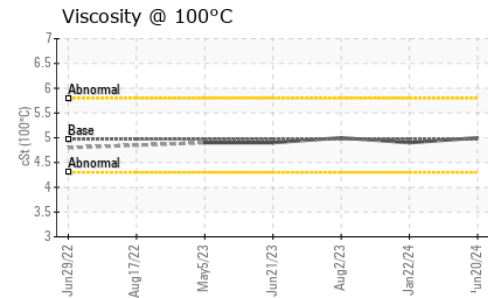
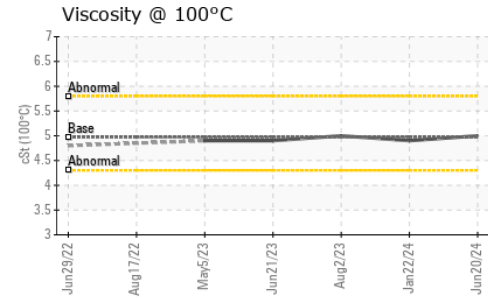
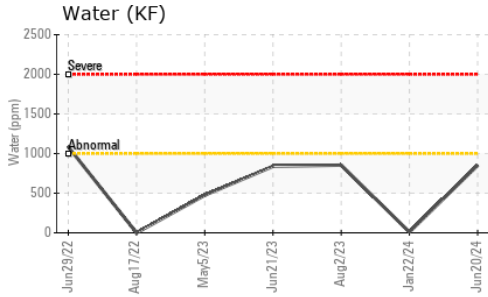
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >8	<1	1	1
Sodium	ppm	ASTM D5185(m)	0	0	0
Potassium	ppm	ASTM D5185(m) >20	<1	<1	0
Water	%	ASTM D6304* >0.1	0.085	0.001	0.085
ppm Water	ppm	ASTM D6304* >1000	851	10	854.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.43	0.36	0.33	0.26



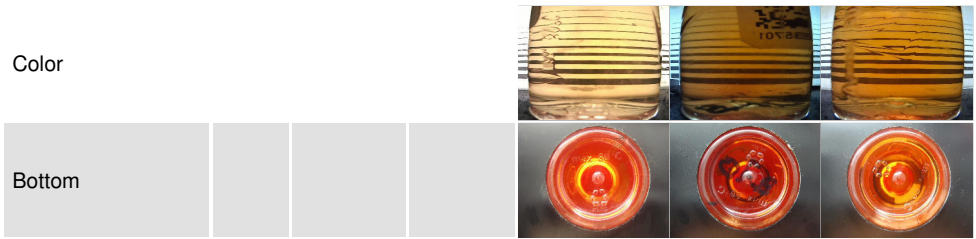
OIL ANALYSIS REPORT



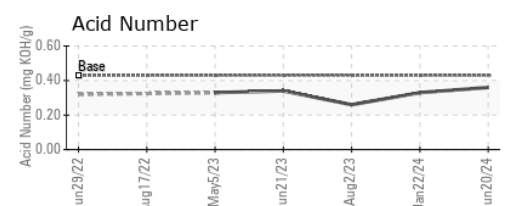
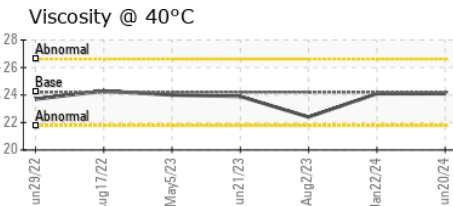
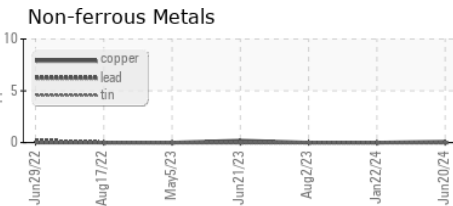
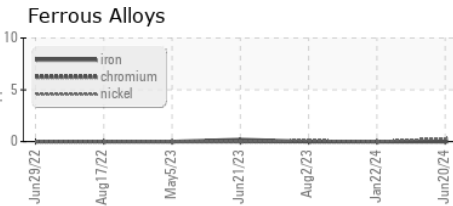
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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	24.1	22.4
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5.0	5
Viscosity Index (VI)	Scale	ASTM D2270*	134	137	157

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0944078 **Received** : 02 Jul 2024
Lab Number : 02644808 **Tested** : 03 Jul 2024
Unique Number : 5802347 **Diagnosed** : 03 Jul 2024 - Kevin Marson
Test Package : AVI 3

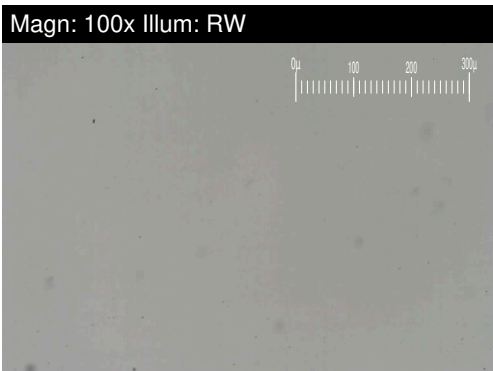
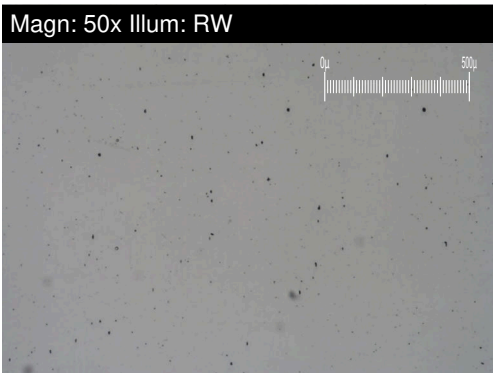
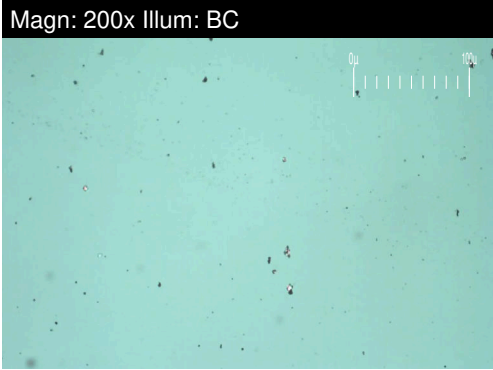
SPRINGER AEROSPACE
 377 LAKEVIEW, P.O. BOX 269
 ECHO BAY, ON
 CA P0S 1C0
 Contact: Robert Hope
 robert@springeraerospace.com
 T: (705)248-2158
 F: (705)248-3397

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-GOFB)
 Machine Id
[C-GOFB] DEHAVILLAND DHC-3T OTTER PCE-RB1236
 Component
Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (--- GAL)

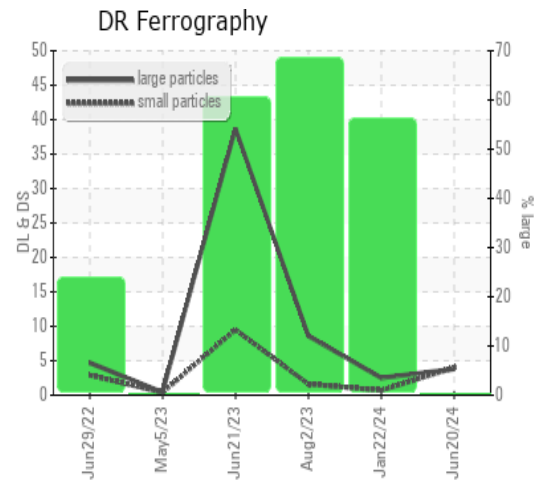


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		3.8	2.5	8.6
Small Particles		DR-Ferr*		4.0	0.7	1.6
Total Particles		DR-Ferr*	>---	7.8	3.2	10.2
Large Particles Percentage	%	DR-Ferr*		0	56.3	68.6
Severity Index		DR-Ferr*		1	5	60

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

WEAR

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



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