

OIL ANALYSIS REPORT

(C-GMCF) [C-GMCF] DEHAVILLAND DHC8-514 244

Component Jet Turbine

NOT GIVEN (--- 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. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal. The directreading & analytical ferrographic 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 Number		Client Info		WC997227	WC	
Sample Date		Client Info		22 Sep 2023	12 Sep 2023	
TSN	hrs	Client Info		58010	0	
TSO	hrs	Client Info		18443	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	ABNORMAL	
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	<1	0	
Aluminum	ppm	ASTM D5185(m)	>2	0	<1	
Lead	ppm	ASTM D5185(m)	>3	0	0	
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	
Codmium	nnm	ACTM DE10E(m)		•	0	
Gaumum	ppin	ASTIVI DO160(III)		0	0	
ADDITIVES	ррпп	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	ASTM D5185(m) Method ASTM D5185(m)	limit/base	u current <1	history1	history2
ADDITIVES Boron Barium	ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1	history1 1 0	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0	0 history1 1 0 <1	 history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0	0 history1 1 0 <1 0	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0	0 history1 1 0 <1 0 0	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 0	0 history1 1 0 <1 0 0 <1	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 0 2549	0 history1 1 0 <1 0 0 <1 2525	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 0 2549 <1	history1 1 0 <1 0 0 <1 2525 2	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 2549 <1 4	history1 1 0 <1 0 <1 2525 2 19	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 0 2549 <1 4 <1	history1 1 0 <1 0 <1 2525 2 19 <1	 history2 -
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 0 2549 <1 4 <1 4 current	history1 1 0 <1 0 <1 2525 2 19 <1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 0 2549 <1 4 <1 4 <1 current 0	bistory1 1 0 <1 0 <1 2525 2 19 <1 history1 0	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base limit/base >8	0 current <1 <1 0 0 0 0 2549 <1 4 <1 current 0 <1	history1 1 0 <1 0 <1 2525 2 19 <1 history1 0 <11 2525 2 19 <1 0 <1 10 <1	history2 -
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 2549 <1 4 <1 current 0 <1 <1 <1	history1 1 0 <1 0 <1 0 <1 2525 2 19 <1 history1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base	0 current <1 <1 0 0 0 0 2549 <1 4 <1 current 0 <1 <1 0.052	bistory1 1 0 <1 0 <1 2525 2 19 <1 bistory1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 0.108	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM DS183(III) ARTM DS183(III) ASTM D5185(III) ASTM D5185(III) ASTM D5185(III) ASTM D5185(IIII) ASTM D5185(IIII) ASTM D5185(IIII) ASTM D5185(IIIII) ASTM D5185(IIIIII) ASTM D5185(IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	limit/base	0 current <1 <1 0 0 0 0 2549 <1 4 <1 <1 0 <1 <1 0 <1 <1 0 0 <2549 <1 4 <1 0 0 0 0 0 0 0 0 0 0 0 0 0	history1 1 0 <1 0 <1 2525 2 19 <1 history1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1080.4	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D6304* ASTM D6304* method	limit/base >8 >20 >0.1 >1000 limit/base	0 current <1 <1 0 0 0 0 2549 <1 4 <1 current 0 <1 <1 0.052 523.8 current	history1 1 0 <1 0 <1 2525 2 19 <1 history1 0 <1 0 <1 0 <1 0 <1 0 <1 0 0.108 1080.4 history1	history2 history2 history2



OIL ANALYSIS REPORT







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Yellow Metal scalar Visual* NONE NONE NONE NONE
Precipitate scalar Visual* NONE NORE NONE NORE
Silt scalar Visual* NONE NONE NONE Debris scalar Visual* NONE VLITE NONE Sand/Dirt scalar Visual* NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE Appearance scalar Visual* NORML NORML NORML Codor scalar Visual* NORML NORML NORML Free Water scalar Visual* ->0.1 NEG NEG Free Water scalar Visual* ->0.1 NEG NEG FLUID PROPERTIES method imit/base current history1 history2 Visc @ 40°C cSt ASTM D2270* 127 124 SAMPLE IMAGES method imit/base current history1 history2 Color cSt ASTM D2270* 127 124 SAMPLE IMAGES method imit/base current history1 no image PrtFilter no image no image no image Retorm for the start of
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GRAPHS Ferrous Alloys
GRAPHS Ferrous Alloys
Ferrous Alloys
Non-ferrous Metals
Viscosity @ 40°C
Abnomal E Output Acid Number
0 - Abnormal
Earth
2/23 . 2/23 . 2/23 .
Sep 2 Sep 1
WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 PERIMETER AVIATIO
WC99/22/ Received : 04 Oct 2023 626 FERRY ROA
U2000737 Diagnosed : TU OCI 2023 WINNIPEG, N 5655903 Diagnosticion : Kovin Marcon
AVI 3 Contact: Jacob K

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.

CALA

ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number

Unique Number Test Package

T: 2(047)838-0000

F: (204)784-4689

FERROGRAPHY REPORT

Area (C-GMCF) Machine Id [C-GMCF] DEHAVILLAND DHC8-514 244

Jet Turbine Fluid NOT GIVEN (--- GAL)





Magn: 100x Illum: RW



DR-FERROGRAP	HY	method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		1.8	4.2	
Small Particles		DR-Ferr*		0.6	3.4	
Total Particles		DR-Ferr*	>	2.4	7.6	
Large Particles Percentage	%	DR-Ferr*		50	10.5	
Severity Index		DR-Ferr*		2	3	
FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		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	
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	

WEAF

All component wear rates are normal. The direct-reading & analytical ferrographic results are normal indicating no abnormal wear in the system.



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