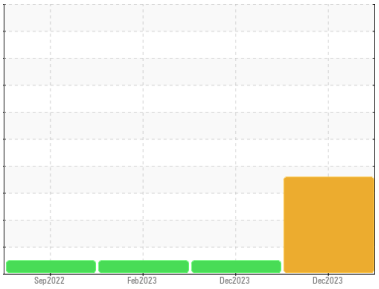
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR PARTICLES

Area
(C-GBNX)
Machine Id
[C-GBNX] CESSNA C560 PCE-JD0556
Component
Right Jet Turbine
Fluid
EASTMAN TURBO OIL 2380 (9 LTR)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition.

Wear

Wear particle analysis indicates that the nonferrous cutting and nonferrous sliding particles are marginal. All other component wear rates are normal. The metal particles on the filter patch are non-ferrous. Non-ferrous particles are comprised of a major of magnesium (determined by wet chemistry) and trace amounts of aluminum (wet chemistry).

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

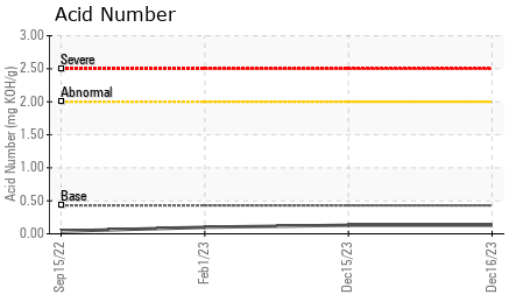
SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0889949**	WC0818464	WC0779680
Sample Date		Client Info		**16 Dec 2023**	15 Dec 2023	01 Feb 2023
TSN	hrs	Client Info		**3912**	3912	3548
TSO	hrs	Client Info		**179**	179	1708
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**MARGINAL**	NORMAL	NORMAL

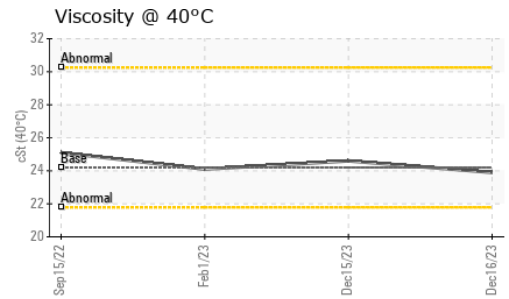
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

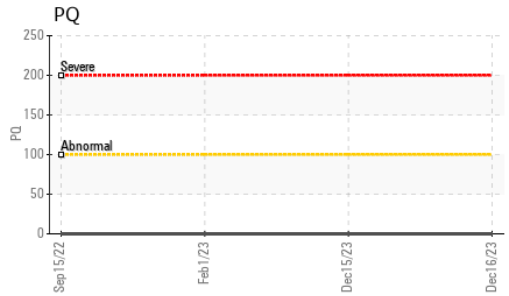
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	---	0
Iron	ppm	ASTM D5185(m)	>20	**<1**	1	<1
Chromium	ppm	ASTM D5185(m)	>7	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>6	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>8	**0**	0	0
Silver	ppm	ASTM D5185(m)	>8	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>8	**1**	1	<1
Lead	ppm	ASTM D5185(m)	>3	**<1**	<1	0
Copper	ppm	ASTM D5185(m)	>8	**0**	<1	0
Tin	ppm	ASTM D5185(m)	>2	**0**	0	<1
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

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
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*		**1**		
Nonferrous Cutting	Scale 0-10	ASTM D7684*		**1**		
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	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
Patch Weight	mg	ASTM D7684*		**7**	---	---

OIL ANALYSIS REPORT







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	**2**	2	0
Calcium	ppm	ASTM D5185(m)	0	**<1**	<1	0
Phosphorus	ppm	ASTM D5185(m)	2500	**2638**	2567	2521
Zinc	ppm	ASTM D5185(m)	0	**<1**	1	<1
Sulfur	ppm	ASTM D5185(m)	0	**0**	8	2
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**2**	2	0
Sodium	ppm	ASTM D5185(m)		**0**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.43	**0.13**	0.13	0.10

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ **VLITE**	NONE	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	**23.9**	24.6	24.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter				no image	no image

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889949 **Recieved** : 21 Dec 2023
Lab Number : 02604623 **Diagnosed** : 02 Jan 2024
Unique Number : 5697708 **Diagnostician** : Bill Quesnel
Test Package : AVI 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, PQ)

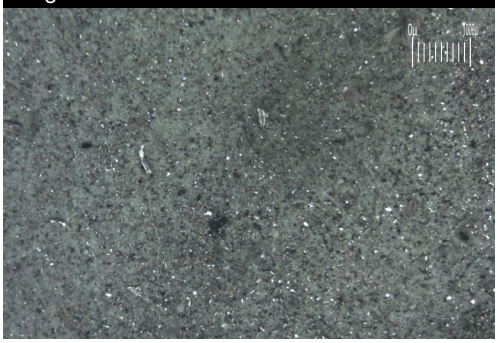
To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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

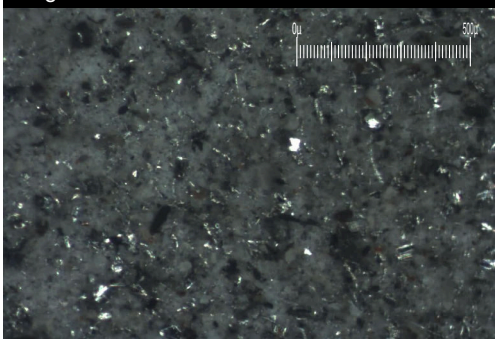
FILTER REPORT

Area
(C-GBNX)
Machine Id
[C-GBNX] CESSNA C560 PCE-JD0556
Component
Right Jet Turbine
Fluid
EASTMAN TURBO OIL 2380 (9 LTR)

Magn: 10x Illum: RW



Magn: 60x Illum: RW



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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*				
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Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*		**1**		
Nonferrous Cutting	Scale 0-10	ASTM D7684*		**1**		
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	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
Patch Weight	mg	ASTM D7684*		**7**	---	---

WEAR

Wear particle analysis indicates that the nonferrous cutting and nonferrous sliding particles are marginal. All other component wear rates are normal. The metal particles on the filter patch are non-ferrous. Non-ferrous particles are comprised of a major of magnesium (determined by wet chemistry) and trace amounts of aluminum (wet chemistry).

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