



OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(C-GDGC)
Machine Id
[C-GDGC] BEEHCRAFT A36 685489
Component
Center Piston Aircraft Engine
Fluid
SHELL AEROSHELL W 15W50 MGR (12 LTR)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0921443	WC0841050	WC0841055
Sample Date		Client Info		02 May 2024	06 Sep 2023	24 Jul 2023
TSN	hrs	Client Info		0	0	0
TSO	hrs	Client Info		1938	1911	884
Oil Age	hrs	Client Info		25	23	27
Filter Age	hrs	Client Info		25	23	27
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

Nickel ppm levels are marginal. All other component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	79	64	64
Chromium	ppm	ASTM D5185(m)	>20	13	13	12
Nickel	ppm	ASTM D5185(m)	>15	▲ 30	25	21
Titanium	ppm	ASTM D5185(m)		<1	<1	<1
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	8	8	8
Lead	ppm	ASTM D5185(m)	>20000	4239	4075	4950
Copper	ppm	ASTM D5185(m)	>25	9	7	7
Tin	ppm	ASTM D5185(m)	>30	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

The water content is negligible. There is no indication of any contamination in the oil.

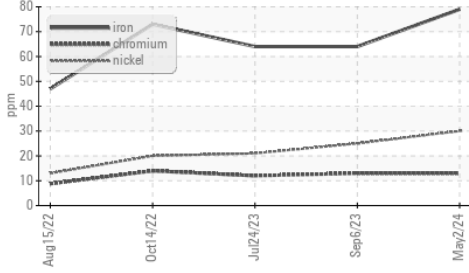
Silicon	ppm	ASTM D5185(m)	>15	7	8	9
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water	%	ASTM D6304*	>0.1	0.044	---	---
ppm Water	ppm	ASTM D6304*	>1000	442	---	---
Glycol		WC Method		NEG	NEG	NEG
Silt	scalar	Visual*	NONE	VLITE	VLITE	VLITE
Debris	scalar	Visual*	NONE	NONE	VLITE	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	.2%	NEG	NEG

FLUID CONDITION

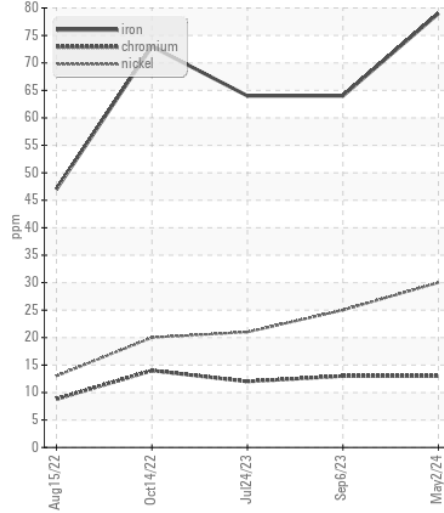
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	5	2	4	3
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	10	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	10	3	3	6
Phosphorus	ppm	ASTM D5185(m)	1280	1136	1190	1256
Zinc	ppm	ASTM D5185(m)	10	5	5	5
Sulfur	ppm	ASTM D5185(m)	1800	1342	1279	1164
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	17.1	17.1	17.0

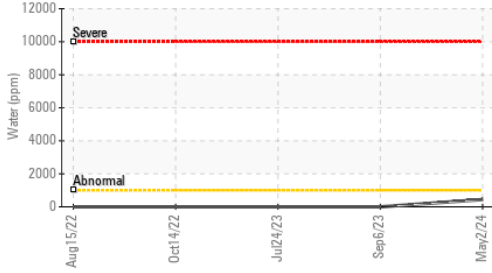
▲ Ferrous Alloys



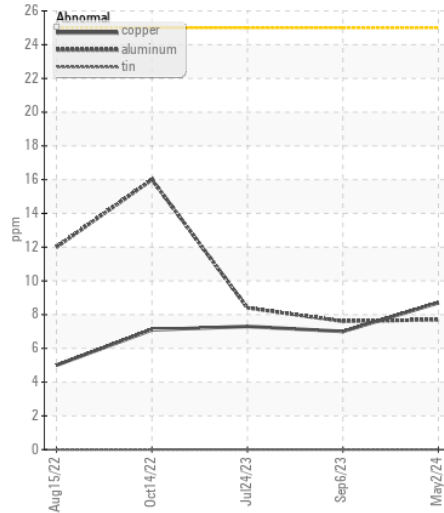
▲ Ferrous Alloys



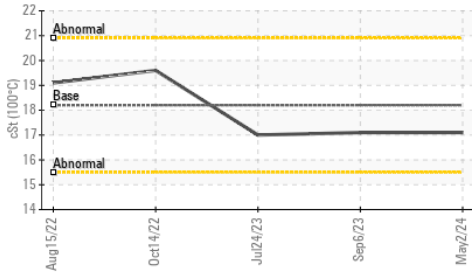
Water (KF)



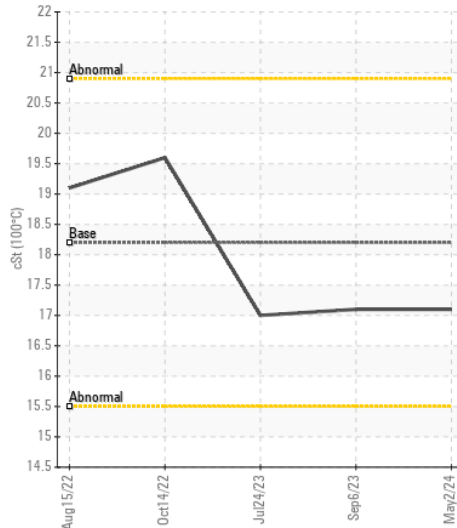
Copper/Aluminum/Tin



Viscosity @ 100°C



Viscosity @ 100°C



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0921443
Lab Number : 02633099
Unique Number : 5774252
Test Package : AVI 1 (Additional Tests: KF)
Received : 03 May 2024
Tested : 06 May 2024
Diagnosed : 06 May 2024 - Kevin Marson

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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.