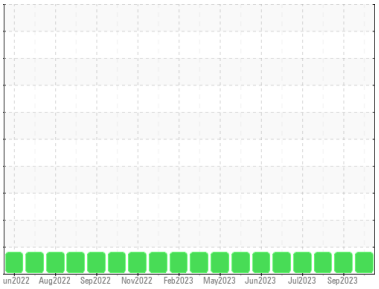
PROBLEM SUMMARY

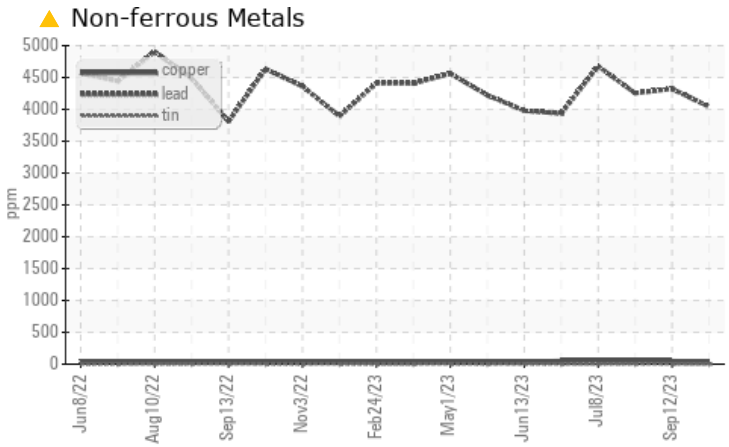
Sample Rating Trend



WEAR

Area
(C-GGPO)
Machine Id
[C-GGPO] CESSNA 172R L-29048-51A
Component
Piston Aircraft Engine
Fluid
SHELL AEROSHELL OIL W 100 PLUS (8 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you monitor for an abnormal oil pressure drop and noise. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185(m)	>25	▲ **45**	▲ 48	▲ 55

Customer Id: WCSWIN
Sample No.: WC0849571
Lab Number: 02587578
Test Package: AVI 1

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Monitor	---	---	?	We advise that you monitor for an abnormal oil pressure drop and noise.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

12 Sep 2023 Diag: Kevin Marson

WEAR

We advise that you monitor for an abnormal oil pressure drop and noise. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

17 Aug 2023 Diag: Kevin Marson

WEAR

We advise that you monitor for an abnormal oil pressure drop and noise. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

08 Jul 2023 Diag: Kevin Marson

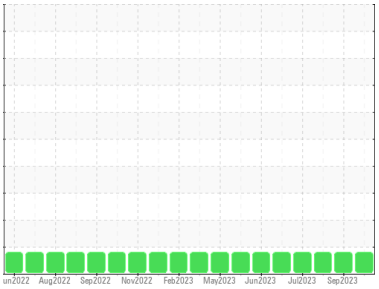
WEAR

We advise that you monitor for an abnormal oil pressure drop and noise. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
(C-GGPO)
Machine Id
[C-GGPO] CESSNA 172R L-29048-51A
Component
Piston Aircraft Engine
Fluid
SHELL AEROSHELL OIL W 100 PLUS (8 LTR)

DIAGNOSIS

Recommendation

We advise that you monitor for an abnormal oil pressure drop and noise. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0849571**	WC0849562	WC0828146
Sample Date		Client Info		**02 Oct 2023**	12 Sep 2023	17 Aug 2023
TSN	hrs	Client Info		**0**	0	0
TSO	hrs	Client Info		**2841**	2794	2741
Oil Age	hrs	Client Info		**47**	53	50
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

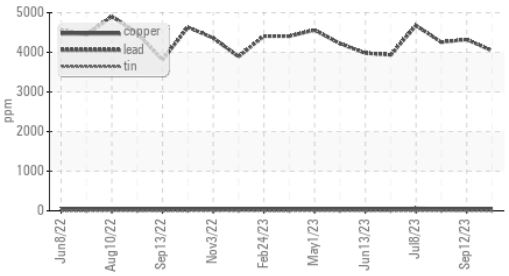
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	**37**	38	39
Chromium	ppm	ASTM D5185(m)	>20	**5**	5	5
Nickel	ppm	ASTM D5185(m)	>15	**1**	1	1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>5	**<1**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**9**	10	9
Lead	ppm	ASTM D5185(m)	>20000	**4041**	4322	4254
Copper	ppm	ASTM D5185(m)	>25	▲ **45**	▲ 48	▲ 55
Tin	ppm	ASTM D5185(m)	>30	**1**	2	2
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	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	<1
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	<1	<1
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**0**	<1	<1
Calcium	ppm	ASTM D5185(m)	0	**<1**	<1	1
Phosphorus	ppm	ASTM D5185(m)		**1248**	1301	1232
Zinc	ppm	ASTM D5185(m)	0	**6**	7	8
Sulfur	ppm	ASTM D5185(m)	2600	**3134**	3228	2570
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

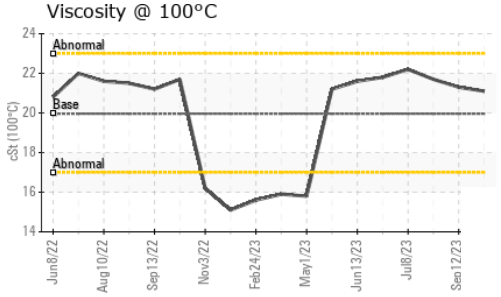
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**4**	4	3
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	<1

OIL ANALYSIS REPORT

Non-ferrous Metals



Viscosity @ 100°C

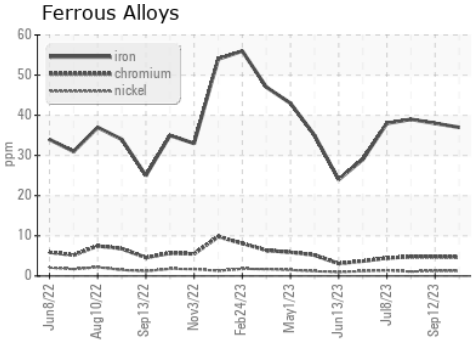


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**VLITE**	NONE	VLITE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

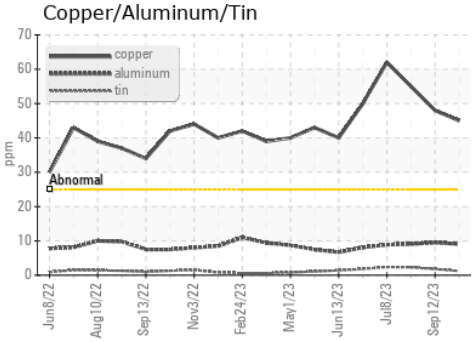
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	19.96	**21.1**	21.3	21.7

GRAPHS

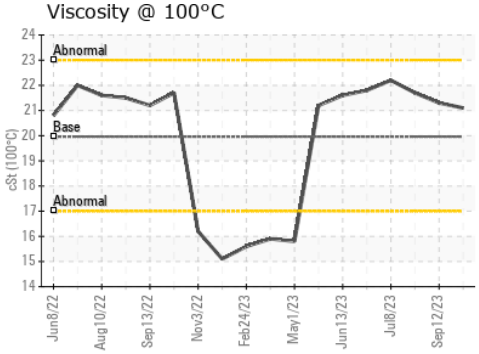
Ferrous Alloys



Copper/Aluminum/Tin



Viscosity @ 100°C



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0849571
Lab Number : 02587578
Unique Number : 5656644
Test Package : AVI 1

Received : 06 Oct 2023
Diagnosed : 06 Oct 2023
Diagnostician : Kevin Marson

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.

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