

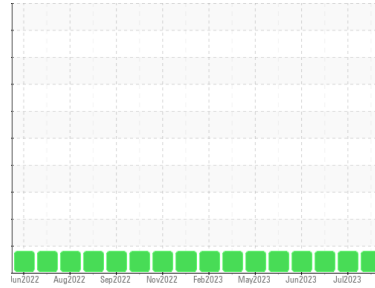


PROBLEM SUMMARY

Sample Rating Trend

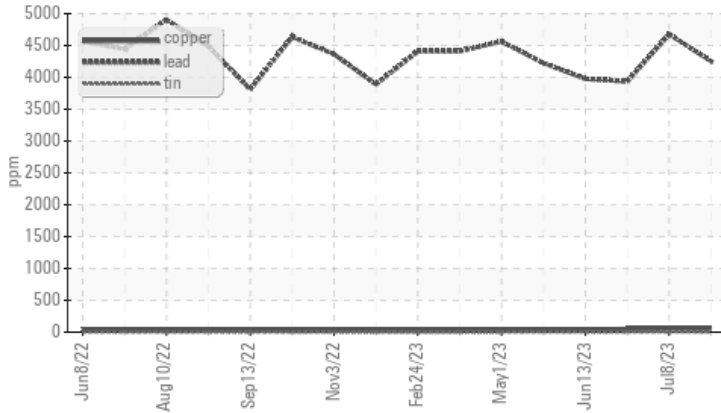
WEAR

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

▲ Non-ferrous Metals



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	
Copper	ppm	ASTM D5185(m) >25	▲ 55	▲ 62	▲ 50

Customer Id: WCSWIN
 Sample No.: WC0828146
 Lab Number: 02576720
 Test Package: AVI 1



To manage this report scan the QR code

To discuss the diagnosis or test data:
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RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Monitor	---	---	?	We advise that you monitor for an abnormal oil pressure drop and noise.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

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](#)



07 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](#)



13 Jun 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](#)



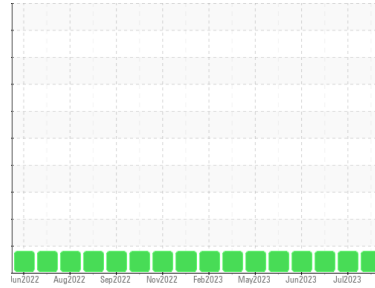


OIL ANALYSIS REPORT

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. The oil change at the time of sampling has been noted. 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	WC0828146	WC0828145	WC0816791
Sample Date	Client Info	17 Aug 2023	08 Jul 2023	07 Jul 2023
TSN	hrs	0	0	0
TSO	hrs	2741	2691	2644
Oil Age	hrs	50	48	44
Oil Changed	Client Info	Changed	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	39	38	29
Chromium	ppm ASTM D5185(m) >20	5	4	4
Nickel	ppm ASTM D5185(m) >15	1	1	1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >5	<1	<1	<1
Aluminum	ppm ASTM D5185(m) >25	9	9	8
Lead	ppm ASTM D5185(m) >20000	4254	4677	3935
Copper	ppm ASTM D5185(m) >25	55	62	50
Tin	ppm ASTM D5185(m) >30	2	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)	<1	<1	<1

ADDITIVES

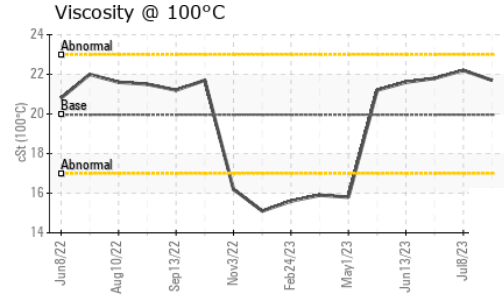
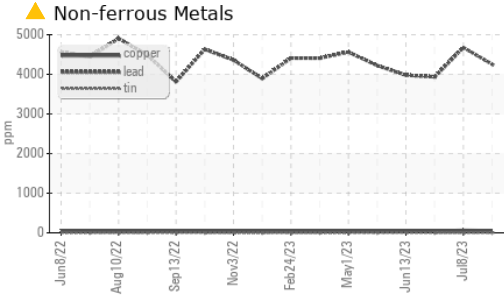
method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	<1	<1	<1
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m)	<1	<1	<1
Manganese	ppm ASTM D5185(m)	0	0	0
Magnesium	ppm ASTM D5185(m) 0	<1	<1	<1
Calcium	ppm ASTM D5185(m) 0	1	1	1
Phosphorus	ppm ASTM D5185(m)	1232	1254	1257
Zinc	ppm ASTM D5185(m) 0	8	8	7
Sulfur	ppm ASTM D5185(m) 2600	2570	2635	2577
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

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



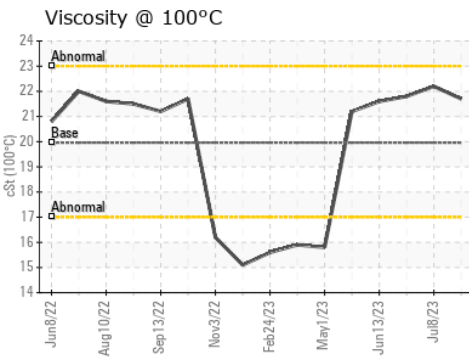
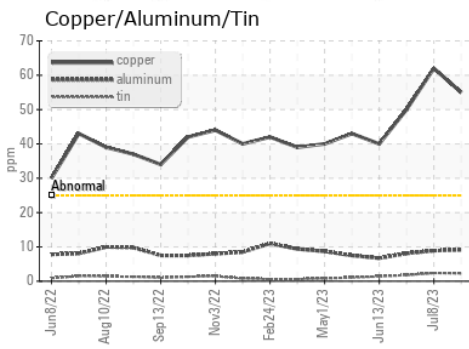
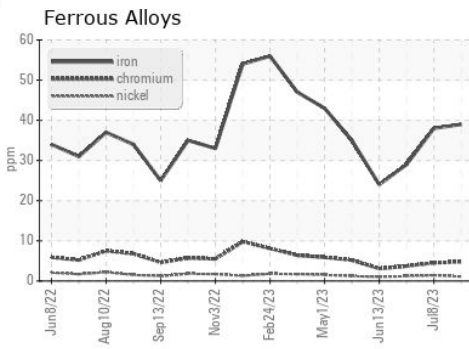
OIL ANALYSIS REPORT



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 @ 100°C	cSt	ASTM D7279(m)	19.96	21.7	22.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0828146 **Received** : 18 Aug 2023
Lab Number : **02576720** **Diagnosed** : 21 Aug 2023
Unique Number : 5629780 **Diagnostician** : Kevin Marson
Test Package : AVI 1

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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.