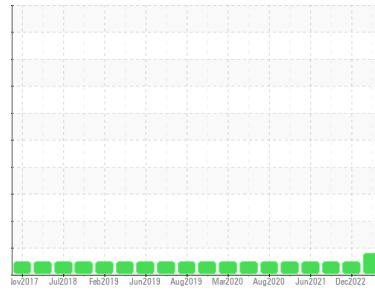




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area

**(C-GKSK)**

Machine Id

**[C-GKSK] CESSNA C-172S L-30810-51E**

Component

**Piston Aircraft Engine**

Fluid

**SHELL AEROSHELL W 15W50 MGR (7 QTS)**

## 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

The water content is negligible. 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	<b>WC0892285</b>	WC0760308	WC0734162
Sample Date	Client Info	<b>01 Apr 2024</b>	28 Dec 2022	06 Sep 2022
TSN	hrs Client Info	<b>0</b>	0	0
TSO	hrs Client Info	<b>159</b>	4163	4077
Oil Age	hrs Client Info	<b>60</b>	46	60
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >90	<b>25</b>	24	30
Chromium	ppm ASTM D5185(m) >20	<b>4</b>	2	3
Nickel	ppm ASTM D5185(m) >15	<b>2</b>	3	3
Titanium	ppm ASTM D5185(m)	<b>0</b>	<1	0
Silver	ppm ASTM D5185(m) >5	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >25	<b>8</b>	9	11
Lead	ppm ASTM D5185(m) >20000	<b>4989</b>	5068	6166
Copper	ppm ASTM D5185(m) >25	<b>▲ 44</b>	14	9
Tin	ppm ASTM D5185(m) >30	<b>&lt;1</b>	0	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>1</b>	<1	<1

## ADDITIVES

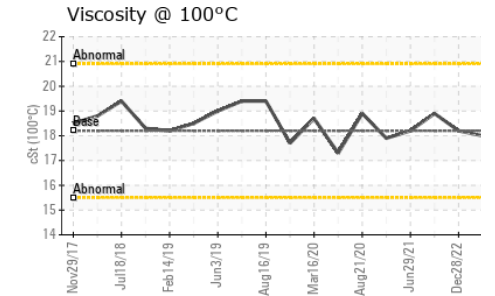
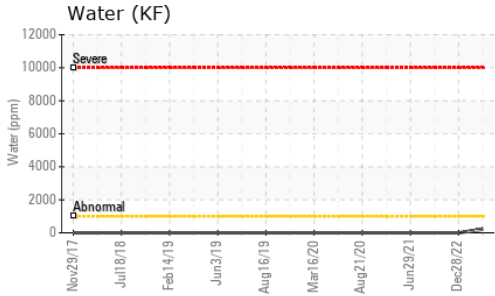
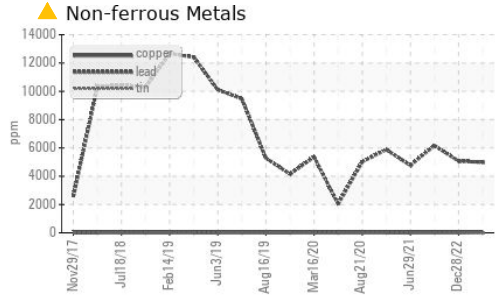
method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Barium	ppm ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 5	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m) 10	<b>2</b>	<1	<1
Calcium	ppm ASTM D5185(m) 10	<b>3</b>	<1	2
Phosphorus	ppm ASTM D5185(m) 1280	<b>1170</b>	1245	1217
Zinc	ppm ASTM D5185(m) 10	<b>8</b>	6	6
Sulfur	ppm ASTM D5185(m) 1800	<b>1478</b>	1126	1231
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>9</b>	4	3
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Water	% ASTM D6304* >0.1	<b>0.021</b>	---	---
ppm Water	ppm ASTM D6304* >1000	<b>217</b>	---	---



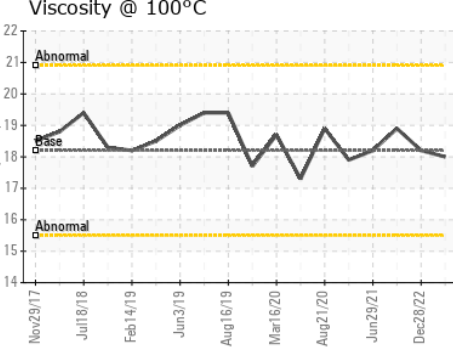
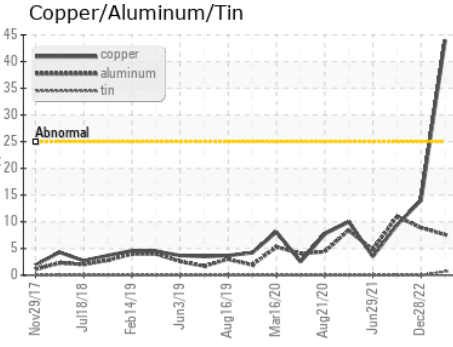
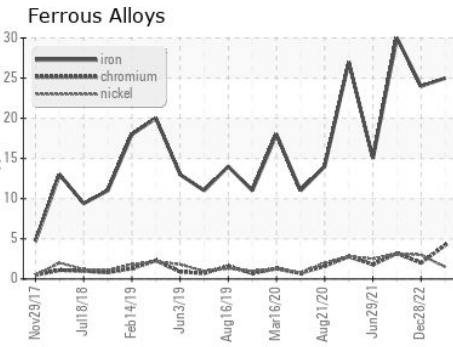
# OIL ANALYSIS REPORT



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	.2%	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	18.0	18.2

**GRAPHS**



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0892285  
**Lab Number** : 02646980  
**Unique Number** : 5812532  
**Test Package** : AVI 1 ( Additional Tests: KF )  
**Received** : 10 Jul 2024  
**Tested** : 15 Jul 2024  
**Diagnosed** : 15 Jul 2024 - Kevin Marson

**ROCKCLIFFE FLYING CLUB**  
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 F: x:

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.