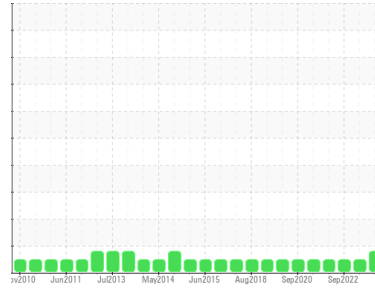




# PROBLEM SUMMARY

Sample Rating Trend



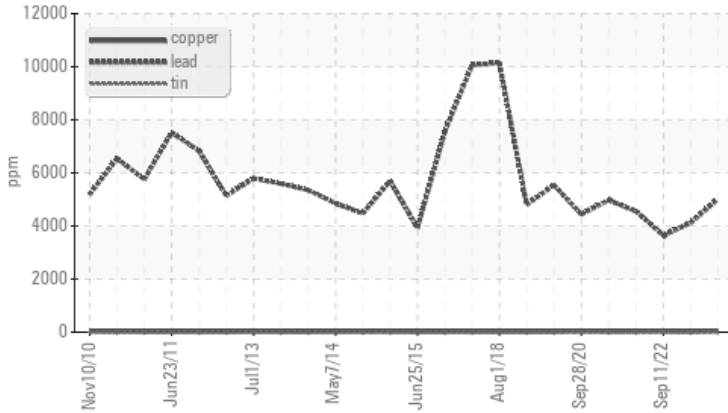
WEAR



Area (C-GODZ)  
Machine Id [C-GODZ] COMMANDER 114B L-26525-48A  
Component Piston Aircraft Engine  
Fluid SHELL AEROSHELL W 15W50 MGR (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	NORMAL	NORMAL	
Copper	ppm	ASTM D5185(m)	>25	▲ 42	21	32

Customer Id: 223THO  
Sample No.: WC0869630  
Lab Number: 02590972  
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](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto: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.
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

### 02 May 2023 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

[view report](#)



### 11 Sep 2022 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

[view report](#)



### 20 Nov 2021 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

[view report](#)



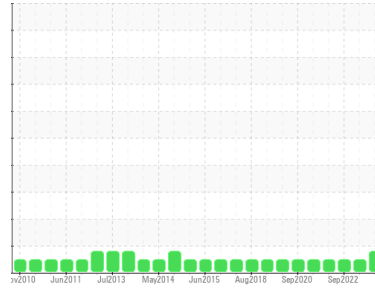


# OIL ANALYSIS REPORT

Sample Rating Trend

**WEAR**

Area  
**(C-GODZ)**  
 Machine Id  
**[C-GODZ] COMMANDER 114B L-26525-48A**  
 Component  
**Piston Aircraft Engine**  
 Fluid  
**SHELL AEROSHELL W 15W50 MGR (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	<b>WC0869630</b>	WC0740375	WC0661142	
Sample Date	Client Info	<b>12 Oct 2023</b>	02 May 2023	11 Sep 2022	
TSN	hrs	Client Info	<b>197504</b>	1903	1873
TSO	hrs	Client Info	<b>1975</b>	1903	1873
Oil Age	hrs	Client Info	<b>44</b>	30	30
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>32</b>	23	21
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>15	<b>4</b>	2	2
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>7</b>	4	5
Lead	ppm	ASTM D5185(m)	>20000	<b>5017</b>	4122	3646
Copper	ppm	ASTM D5185(m)	>25	<b>42</b>	21	32
Tin	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	0	<1
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>2</b>	2	2

## ADDITIVES

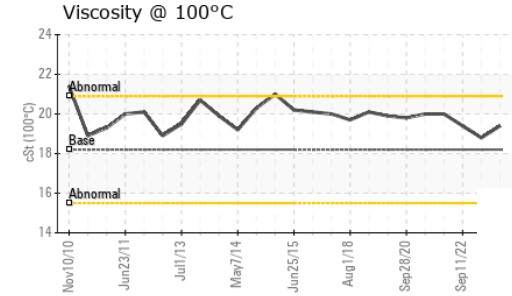
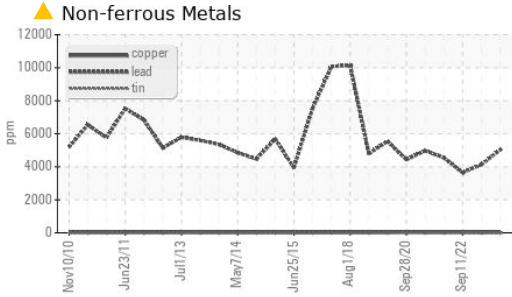
method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	10	<b>21</b>	22	16
Calcium	ppm	ASTM D5185(m)	10	<b>4</b>	<1	1
Phosphorus	ppm	ASTM D5185(m)	1280	<b>1221</b>	1316	1221
Zinc	ppm	ASTM D5185(m)	10	<b>17</b>	12	13
Sulfur	ppm	ASTM D5185(m)	1800	<b>1307</b>	1150	1360
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>4</b>	2	2
Sodium	ppm	ASTM D5185(m)		<b>3</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0



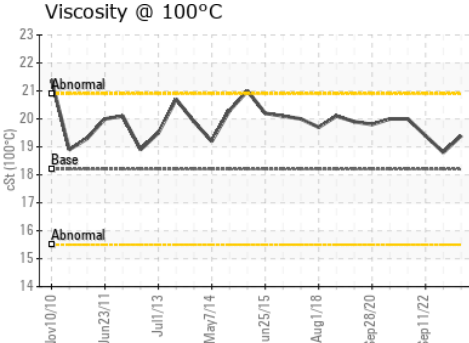
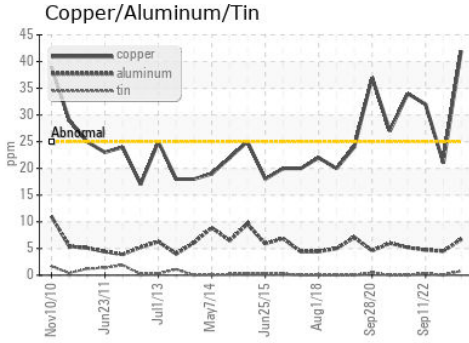
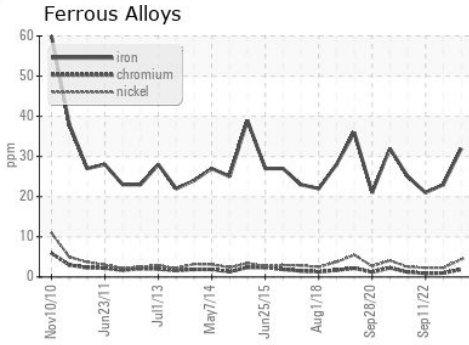
# OIL ANALYSIS REPORT



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)	18.2	19.4	18.8

**GRAPHS**



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0869630  
**Lab Number** : 02590972  
**Unique Number** : 5668051  
**Test Package** : AVI 1

**2239351 ONTARIO INC**  
 3-1136 CENTRE STREET SUIT # 252  
 THORNHILL, ON  
 CA L4J 3M8  
 Contact: Phil Lightstone  
 plight@rogers.com  
 T: (416)578-7445  
 F:

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.