



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**(C-GHRN)**  
Machine Id  
**[C-GHRN] CIRRUS SR222T 1046304**  
Component  
**Front Piston Aircraft Engine**  
Fluid  
**PHILLIPS 66 AVIATION TYPE M SAE 20W50 (8 LTR)**

## RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0821900</b>	---	---
Sample Date		Client Info		<b>23 Feb 2024</b>	---	---
TSN	hrs	Client Info		<b>28</b>	---	---
TSO	hrs	Client Info		<b>28</b>	---	---
Oil Age	hrs	Client Info		<b>28</b>	---	---
Filter Age	hrs	Client Info		<b>28</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>52</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>13</b>	---	---
Nickel	ppm	ASTM D5185(m)	>15	<b>7</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<b>6</b>	---	---
Lead	ppm	ASTM D5185(m)	>20000	<b>1913</b>	---	---
Copper	ppm	ASTM D5185(m)	>25	<b>34</b>	---	---
Tin	ppm	ASTM D5185(m)	>30	<b>1</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

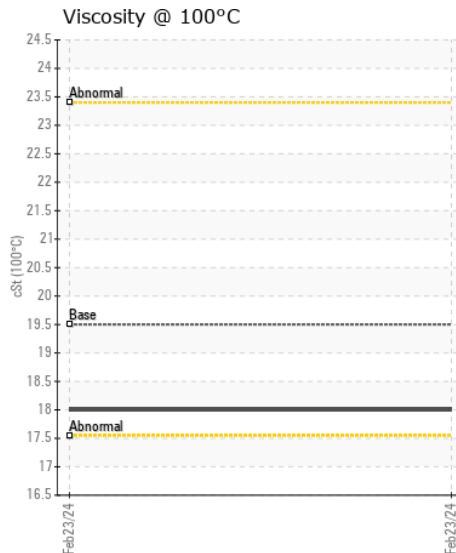
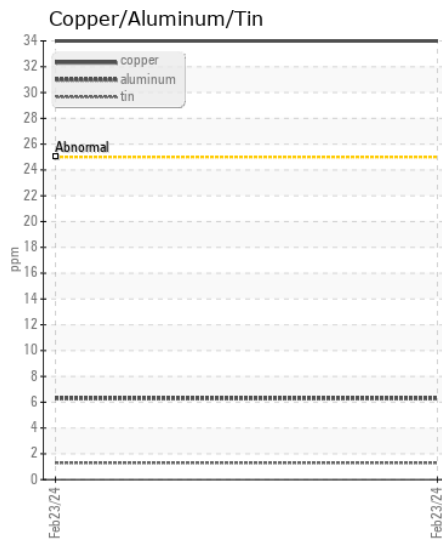
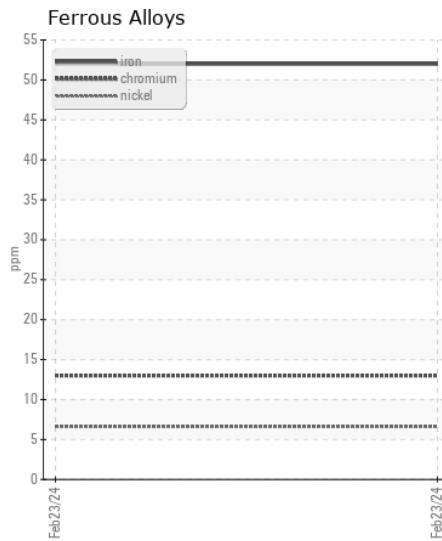
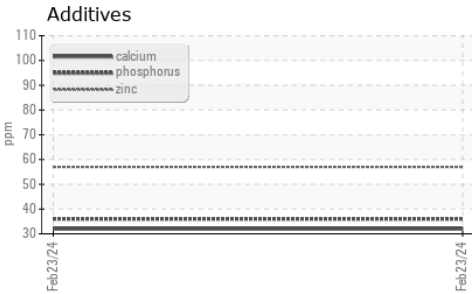
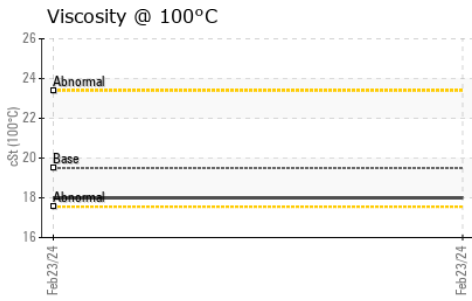
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>31</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	ASTM D7844*		<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>4.9</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>14.2</b>	---	---
Silt	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	---	---

## FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>4</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>3</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>32</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>36</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>57</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>1328</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>9.9</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	19.5	<b>18.0</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0821900 **Received** : 28 Feb 2024  
**Lab Number** : 02618658 **Tested** : 28 Feb 2024  
**Unique Number** : 5735768 **Diagnosed** : 29 Feb 2024 - Kevin Marson  
**Test Package** : AVI 1 ( Additional Tests: FT-IR )

**HANFIELD AVIATION**  
 4920 RTE DE L'AEROPORT  
 ST-HUBERT, QC  
 CA J3Y 8Y9  
 Contact: Pierre  
 maintenance@handfieldaviation.com  
 T: (450)462-8511  
 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.