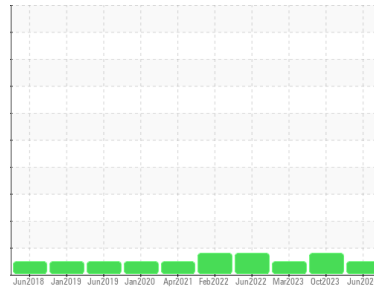




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**[C-GGWW] CIRRUS SR22 C-GGWW**  
 Component  
**Piston Aircraft Engine**  
 Fluid  
**SHELL AEROSHELL OIL W 100 PLUS (--- QTS)**

## DIAGNOSIS

### Recommendation

We advise that you check the engine magneto timing. We advise that you check the engine tuning and timing. We advise that you check for excessive valve and valve guide clearance. We advise that you perform a compression test, and a borescope exam. We recommend an early resample to monitor this condition. Provided compression test checks O.K., resample in 20 to 25 hours to monitor.

### Wear

Cylinder wear is indicated. Ring wear is indicated. Exhaust valve 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>WC995276</b>	WC0809039	WC995274
Sample Date	Client Info		<b>16 Jun 2024</b>	22 Oct 2023	30 Mar 2023
TSN	hrs	Client Info	<b>674</b>	501	461
TSO	hrs	Client Info	<b>674</b>	501	461
Oil Age	hrs	Client Info	<b>25</b>	40	29
Oil Changed		Client Info	<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>8</b>	21	---
Iron	ppm	ASTM D5185(m) >90	<b>98</b>	134	88
Chromium	ppm	ASTM D5185(m) >20	<b>21</b>	29	23
Nickel	ppm	ASTM D5185(m) >15	<b>29</b>	42	28
Titanium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m) >5	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m) >25	<b>13</b>	18	13
Lead	ppm	ASTM D5185(m) >20000	<b>6143</b>	6742	5047
Copper	ppm	ASTM D5185(m) >25	<b>20</b>	27	20
Tin	ppm	ASTM D5185(m) >30	<b>4</b>	6	4
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
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) 0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	<b>8</b>	11	9
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 0	<b>1</b>	1	3
Calcium	ppm	ASTM D5185(m) 0	<b>17</b>	43	26
Phosphorus	ppm	ASTM D5185(m)	<b>1049</b>	1071	1220
Zinc	ppm	ASTM D5185(m) 0	<b>9</b>	10	8
Sulfur	ppm	ASTM D5185(m) 2600	<b>2721</b>	3074	2855
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

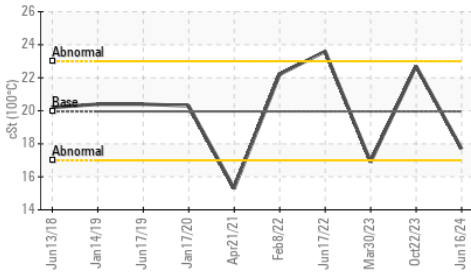
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>10</b>	12	20
Sodium	ppm	ASTM D5185(m)	<b>1</b>	2	1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	0	<1

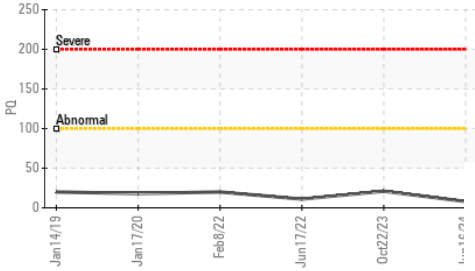


# OIL ANALYSIS REPORT

Viscosity @ 100°C



PQ

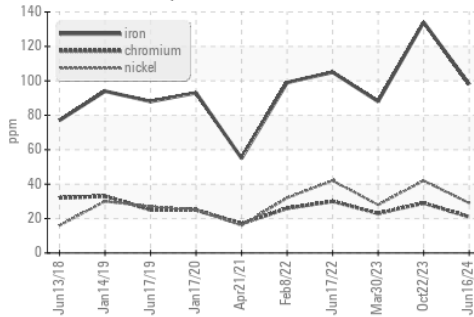


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

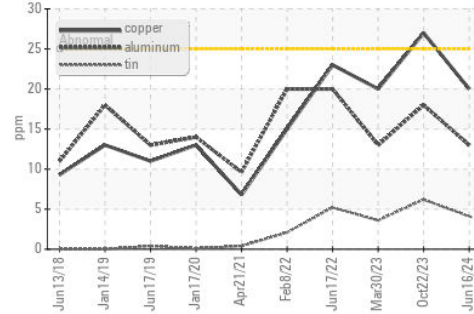
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	19.96	17.7	22.7

## GRAPHS

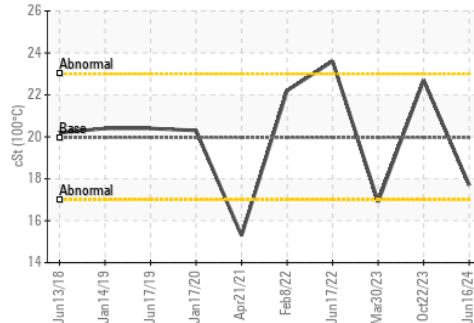
Ferrous Alloys



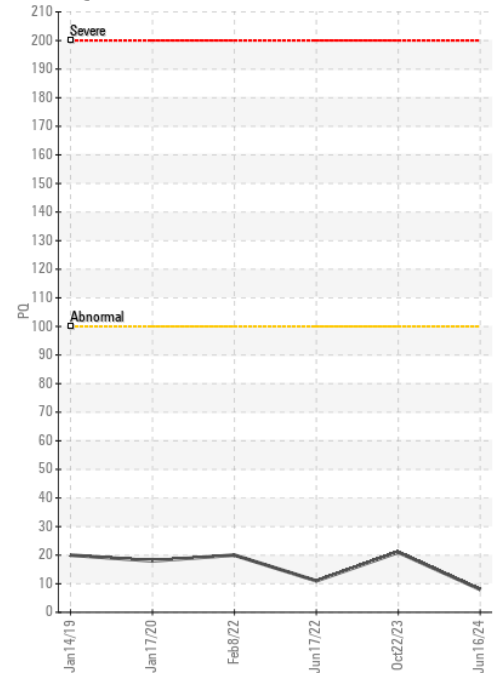
Copper/Aluminum/Tin



Viscosity @ 100°C



PQ



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC995276 **Received** : 17 Jul 2024  
**Lab Number** : 02648421 **Tested** : 17 Jul 2024  
**Unique Number** : 5813973 **Diagnosed** : 18 Jul 2024 - Kevin Marson  
**Test Package** : AVI 1 ( Additional Tests: PQ )

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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