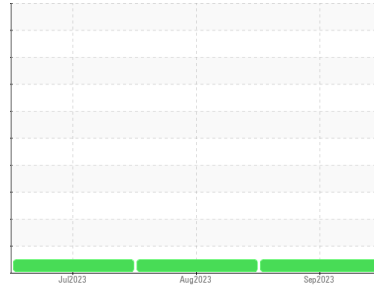




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area

**(C-GTQO)**

Machine Id

**[C-GTQO] DIAMOND DA20C 1033076**

Component

**Piston Aircraft Engine**

Fluid

**SHELL AEROSHELL OIL W 100 PLUS (6 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0849564</b>	WC0828149	WC0816790
Sample Date	Client Info		<b>20 Sep 2023</b>	17 Aug 2023	20 Jul 2023
TSN	hrs	Client Info	<b>0</b>	0	0
TSO	hrs	Client Info	<b>343</b>	289	244
Oil Age	hrs	Client Info	<b>51</b>	45	47
Oil Changed		Client Info	<b>N/A</b>	Changed	Changed
Sample Status			<b>NORMAL</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>16</b>	13	15
Chromium	ppm	ASTM D5185(m)	>20	<b>8</b>	7	13
Nickel	ppm	ASTM D5185(m)	>15	<b>2</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>8</b>	6	10
Lead	ppm	ASTM D5185(m)	>20000	<b>5358</b>	5146	5035
Copper	ppm	ASTM D5185(m)	>25	<b>8</b>	9	13
Tin	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
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>&lt;1</b>	<1	2

## ADDITIVES

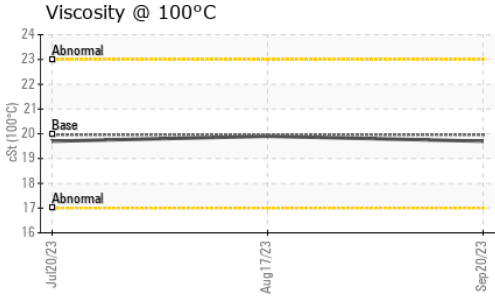
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>4</b>	4	6
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	0	<b>2</b>	1	2
Phosphorus	ppm	ASTM D5185(m)		<b>1253</b>	1276	1291
Zinc	ppm	ASTM D5185(m)	0	<b>7</b>	7	8
Sulfur	ppm	ASTM D5185(m)	2600	<b>2710</b>	2668	2759
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>	4	4
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1



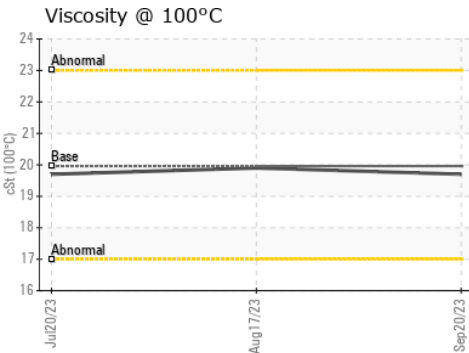
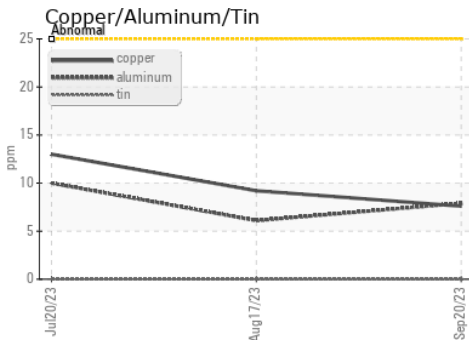
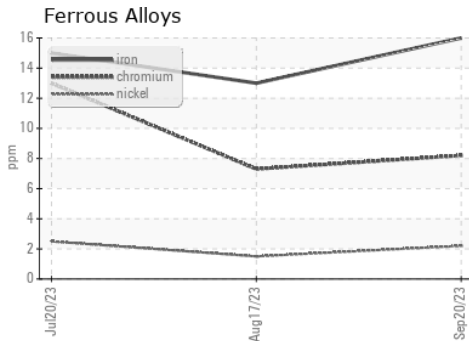
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	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	<b>19.7</b>	19.9	19.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0849564      **Received** : 06 Oct 2023  
**Lab Number** : **02587573**      **Diagnosed** : 06 Oct 2023  
**Unique Number** : 5656639      **Diagnostician** : Kevin Marson  
**Test Package** : AVI 1

**W.C.S. AVIATION LTD.**  
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 F: (519)972-8355

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.