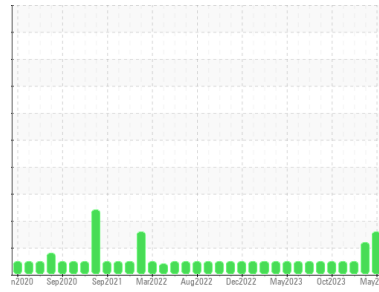




OIL ANALYSIS REPORT

Sample Rating Trend



Area
(C-GDME)
 Machine Id
[C-GDME] DIAMOND DA20 806487
 Component
Piston Aircraft Engine
 Fluid
SHELL AEROSHELL OIL W 100 PLUS (6 LTR)

DIAGNOSIS

Recommendation
 We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
 All component wear rates are normal.

Contamination
 There is a moderate concentration of dirt present in the oil.

Fluid Condition
 The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0936590	WC0936594	WC0882492
Sample Date	Client Info			29 May 2024	01 May 2024	01 Dec 2023
TSN	hrs	Client Info		0	0	0
TSO	hrs	Client Info		95	44	1944
Oil Age	hrs	Client Info		51	44	44
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<1.0	1.1	<1.0
Water	WC Method	>0.1		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	18	24	19
Chromium	ppm	ASTM D5185(m)	>20	11	4	3
Nickel	ppm	ASTM D5185(m)	>15	2	1	1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	9	3	5
Lead	ppm	ASTM D5185(m)	>20000	6238	3925	5320
Copper	ppm	ASTM D5185(m)	>25	15	23	3
Tin	ppm	ASTM D5185(m)	>30	1	1	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		2	3	0

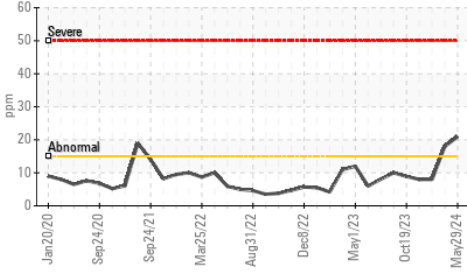
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	<1	0
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)		5	2	<1
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	0	4	4	2
Phosphorus	ppm	ASTM D5185(m)		939	29	1145
Zinc	ppm	ASTM D5185(m)	0	14	18	6
Sulfur	ppm	ASTM D5185(m)	2600	2579	820	2270
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	▲ 21	18	8
Sodium	ppm	ASTM D5185(m)		<1	2	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	23

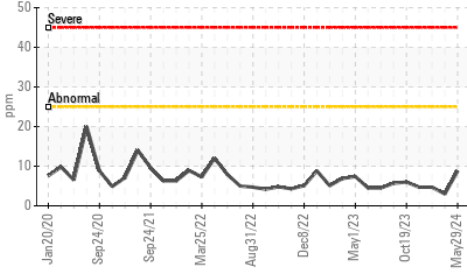


OIL ANALYSIS REPORT

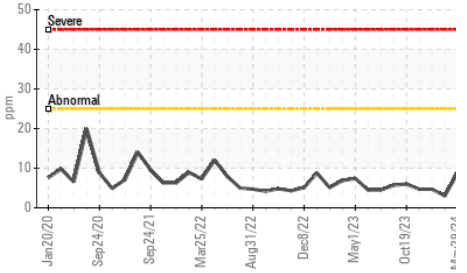
▲ Silicon (ppm)



Aluminum (ppm)



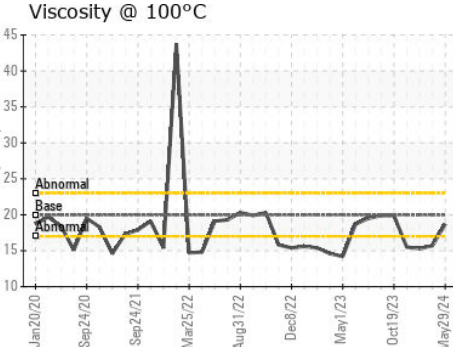
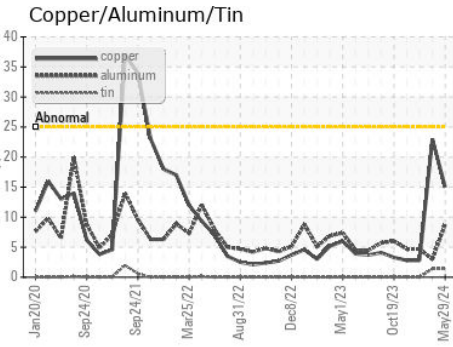
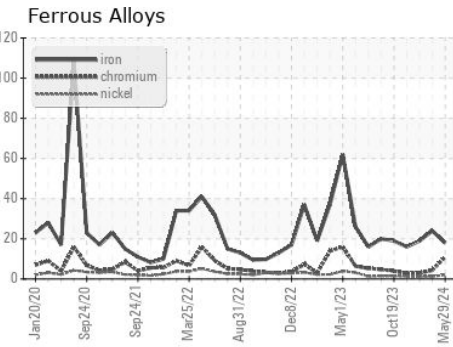
Aluminum (ppm)



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	19.96	18.7	▲ 15.7	15.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0936590
Lab Number : **02644030**
Unique Number : 5801569
Test Package : AVI 1
Received : 25 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Kevin Marson

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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.