



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
(C-GAVV)
Machine Id
[C-GAVV] IO-360-L2A L-34726-51EC
Component
Front Piston Aircraft Engine
Fluid
SHELL AEROSHELL OIL W 100 PLUS (--- LTR)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936591	---	---
Sample Date		Client Info		28 May 2024	---	---
TSN	hrs	Client Info		0	---	---
TSO	hrs	Client Info		1024	---	---
Oil Age	hrs	Client Info		48	---	---
Filter Age	hrs	Client Info		48	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185(m)	>90	49	---	---
Chromium	ppm	ASTM D5185(m)	>20	13	---	---
Nickel	ppm	ASTM D5185(m)	>15	3	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>5	<1	---	---
Aluminum	ppm	ASTM D5185(m)	>25	12	---	---
Lead	ppm	ASTM D5185(m)	>20000	5030	---	---
Copper	ppm	ASTM D5185(m)	>25	▲ 59	---	---
Tin	ppm	ASTM D5185(m)	>30	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---

CONTAMINATION

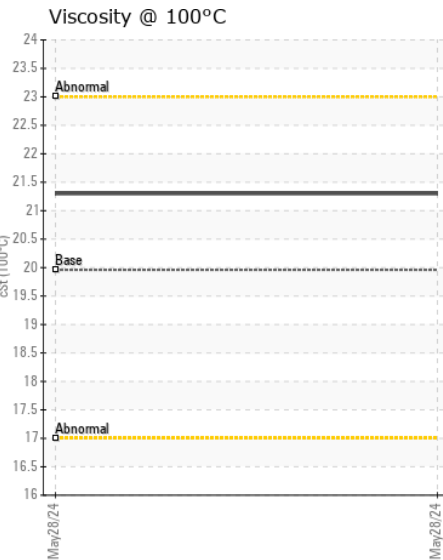
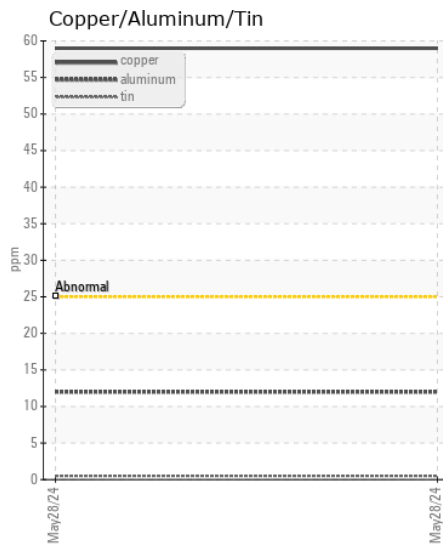
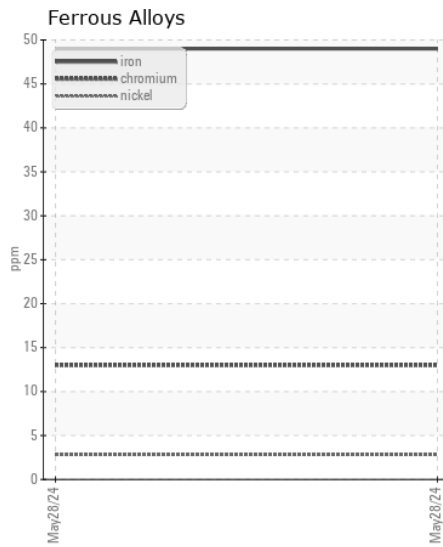
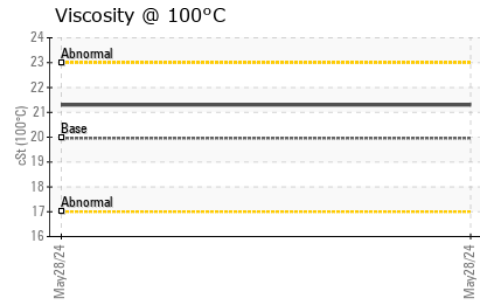
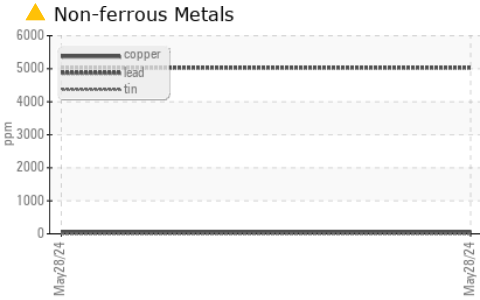
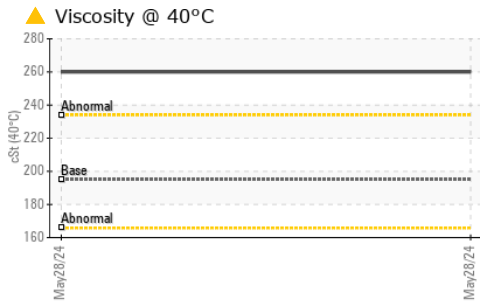
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	0	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---

FLUID CONDITION

The viscosity of the oil is higher than normal, possibly indicating the addition of a heavier grade of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<1	---	---
Boron	ppm	ASTM D5185(m)		<1	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)		<1	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)	0	<1	---	---
Calcium	ppm	ASTM D5185(m)	0	<1	---	---
Phosphorus	ppm	ASTM D5185(m)		1057	---	---
Zinc	ppm	ASTM D5185(m)	0	9	---	---
Sulfur	ppm	ASTM D5185(m)	2600	3304	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	195	▲ 260	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	19.96	21.3	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	116	▲ 97	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0936591 **Received** : 25 Jun 2024
Lab Number : 02644032 **Tested** : 27 Jun 2024
Unique Number : 5801571 **Diagnosed** : 27 Jun 2024 - Kevin Marson
Test Package : AVI 1 (Additional Tests: BottomAnalysis, FILTERPATCH, KV40, VI)

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.

W.C.S. AVIATION LTD.
 2600 AIRPORT ROAD UNIT 108
 WINDSOR, ON
 CA N8V 1A1
 Contact: James V
 james@wcsaviation.com
 T: (519)972-7271
 F: (519)972-8355