MOB I

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LYCOMING O-235 Lancair (S/N 473-15)
Component
Piston Aircraft Engine
Fluid
PHILLIPS VICTORY 20W50 (5 LTR)

RECOMMENDATION

We advise that you check the engine magneto timing. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Chromium ppm levels are abnormal. Ring wear is indicated.

CONTAMINATION

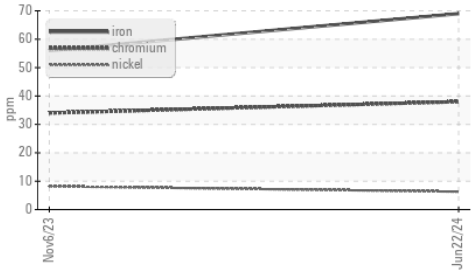
There is no indication of any contamination in the oil.

FLUID CONDITION

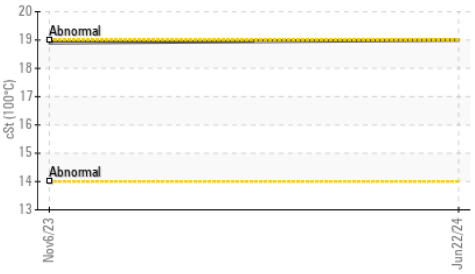
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0016692	CU0016699	---
Sample Date		Client Info		22 Jun 2024	06 Nov 2023	---
Machine Age	hrs	Client Info		52	25	---
Oil Age	hrs	Client Info		25	20	---
Filter Age	hrs	Client Info		25	20	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185(m)	>90	69	56	---
Chromium	ppm	ASTM D5185(m)	>20	▲ 38	▲ 34	---
Nickel	ppm	ASTM D5185(m)	>15	6	8	---
Titanium	ppm	ASTM D5185(m)		<1	0	---
Silver	ppm	ASTM D5185(m)	>5	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>25	16	12	---
Lead	ppm	ASTM D5185(m)	>20000	2223	1817	---
Copper	ppm	ASTM D5185(m)	>25	9	11	---
Tin	ppm	ASTM D5185(m)	>30	<1	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Silicon	ppm	ASTM D5185(m)	>15	14	16	---
Potassium	ppm	ASTM D5185(m)	>20	1	<1	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*		---	0	---
Nitration	Abs/cm	ASTM D7624*	>20	---	4.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	---	20.8	---
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185(m)		2	3	---
Boron	ppm	ASTM D5185(m)		<1	<1	---
Barium	ppm	ASTM D5185(m)		<1	<1	---
Molybdenum	ppm	ASTM D5185(m)		0	0	---
Manganese	ppm	ASTM D5185(m)		<1	0	---
Magnesium	ppm	ASTM D5185(m)		2	1	---
Calcium	ppm	ASTM D5185(m)		176	63	---
Phosphorus	ppm	ASTM D5185(m)		1134	1034	---
Zinc	ppm	ASTM D5185(m)		4	6	---
Sulfur	ppm	ASTM D5185(m)		1568	1611	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	---	11.7	---
Visc @ 100°C	cSt	ASTM D7279(m)		19.0	18.9	---

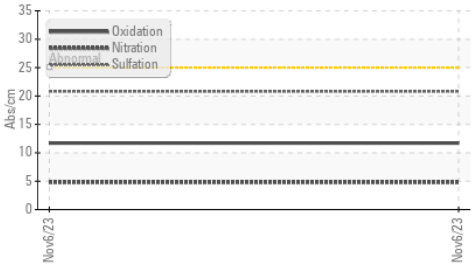
Ferrous Alloys



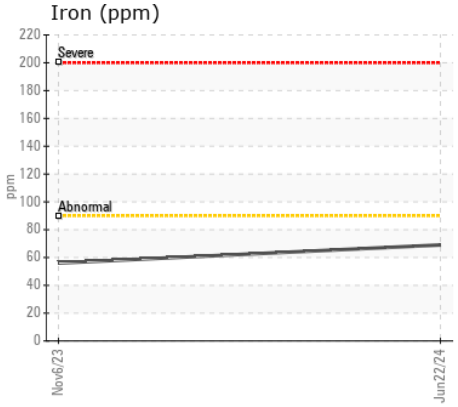
Viscosity @ 100°C



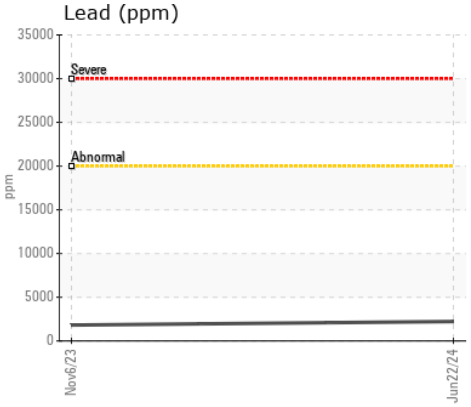
FT-IR (Direct Trend)



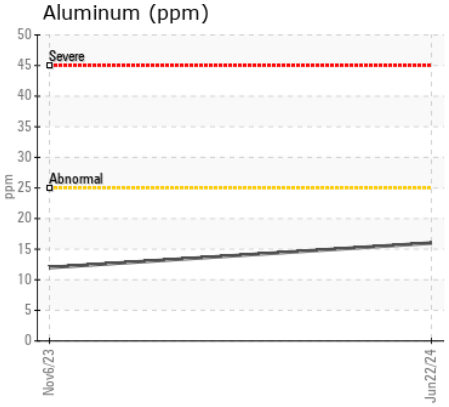
Iron (ppm)



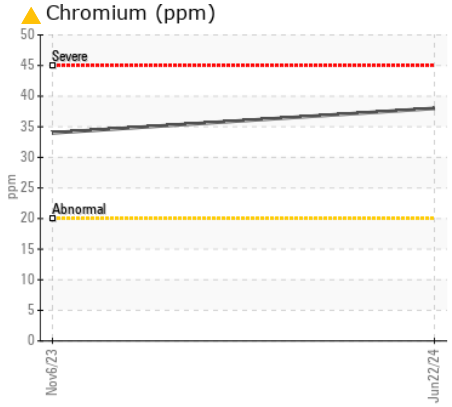
Lead (ppm)



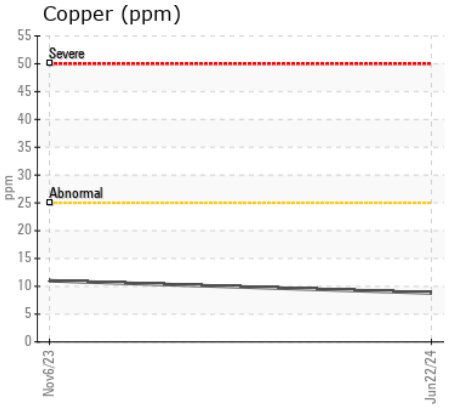
Aluminum (ppm)



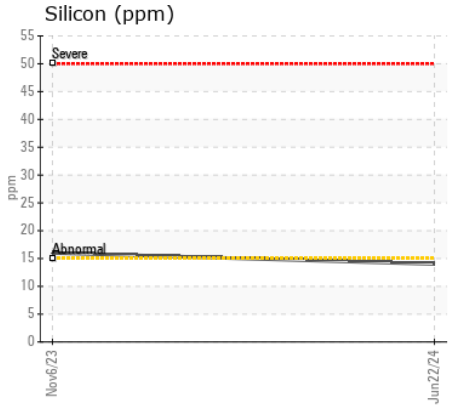
Chromium (ppm)



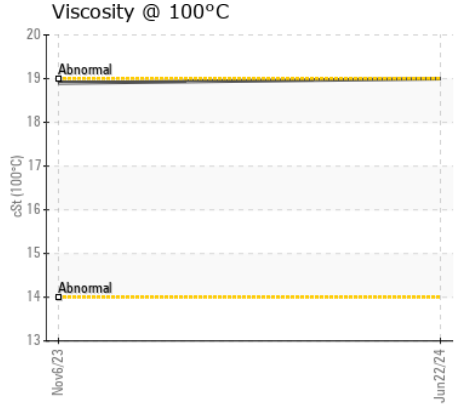
Copper (ppm)



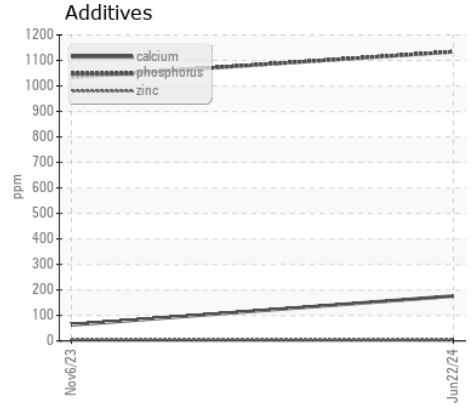
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0016692
Lab Number : 02645393
Unique Number : 5802932
Test Package : MOB 1

Received : 04 Jul 2024
Tested : 04 Jul 2024
Diagnosed : 05 Jul 2024 - Kevin Marson

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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