



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(C-FAQR)
Machine Id
[C-FAQR] PIPER PA31-250 L-2542-68A
Component
Piston Aircraft Engine
Fluid
PHILLIPS 66 AVIATION X/C OIL SAE20W50 (12 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0886716	WC0424214	WC0830820
Sample Date		Client Info		05 Jan 2024	03 Dec 2023	20 Aug 2023
TSN	hrs	Client Info		7433	0	0
TSO	hrs	Client Info		1080	1034	904
Oil Age	hrs	Client Info		65	19	52
Filter Age	hrs	Client Info		65	19	52
Oil Changed		Client Info		Not Changed	Not Changed	Changed
Filter Changed		Client Info		Not Changed	Not Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	31	40	32
Chromium	ppm	ASTM D5185(m)	>20	14	▲ 24	10
Nickel	ppm	ASTM D5185(m)	>15	5	5	8
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>5	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	8	12	6
Lead	ppm	ASTM D5185(m)	>20000	3360	2768	7192
Copper	ppm	ASTM D5185(m)	>25	14	21	6
Tin	ppm	ASTM D5185(m)	>30	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

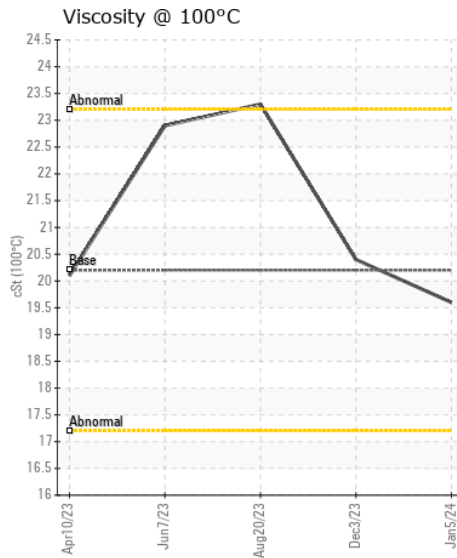
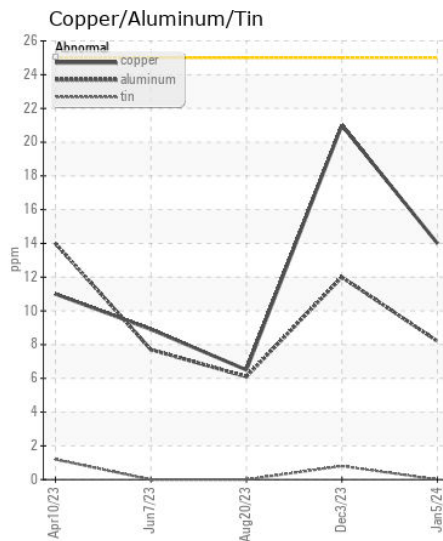
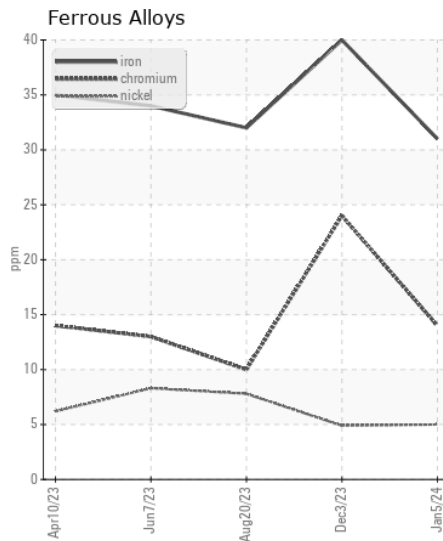
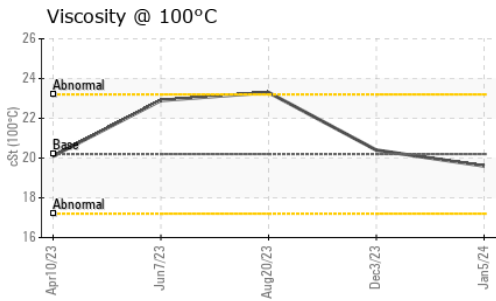
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	13	▲ 20	4
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Silt	scalar	Visual*	NONE	VLITE	NONE	VLITE
Debris	scalar	Visual*	NONE	VLITE	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	.2%	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		8	28	<1
Boron	ppm	ASTM D5185(m)	0.0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0.0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	0.0	<1	<1	0
Manganese	ppm	ASTM D5185(m)	0.0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	6	6	2
Calcium	ppm	ASTM D5185(m)	4.7	5	7	<1
Phosphorus	ppm	ASTM D5185(m)	0.0	<1	4	0
Zinc	ppm	ASTM D5185(m)	0.1	4	6	3
Sulfur	ppm	ASTM D5185(m)	848	979	945	998
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	19.6	20.4	23.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0886716 **Received** : 12 Jan 2024
Lab Number : 02608533 **Diagnosed** : 14 Jan 2024
Unique Number : 5709619 **Diagnostician** : Kevin Marson
Test Package : AVI 1

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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.