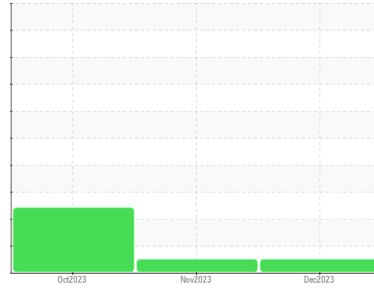




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
(C-GQXD)
Machine Id
[C-GQXD] PIPER PA31-350 L-3246-61A
Component
Left Piston Aircraft Engine
Fluid
PHILLIPS 66 AVIATION TYPE M SAE 20W50 (12 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. 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		WC0838446	WC0826694	WC0826698
Sample Date	Client Info		16 Dec 2023	10 Nov 2023	25 Oct 2023
TSN	hrs	Client Info	0	0	0
TSO	hrs	Client Info	2032	1948	1907
Oil Age	hrs	Client Info	64	17	19
Oil Changed		Client Info	Changed	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	34	19	46
Chromium	ppm	ASTM D5185(m)	>20	10	7	▲ 23
Nickel	ppm	ASTM D5185(m)	>15	8	4	7
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>5	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	8	6	20
Lead	ppm	ASTM D5185(m)	>20000	8115	3135	3006
Copper	ppm	ASTM D5185(m)	>25	11	9	19
Tin	ppm	ASTM D5185(m)	>30	0	<1	3
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	<1	2

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		0	<1	6
Manganese	ppm	ASTM D5185(m)		0	0	2
Magnesium	ppm	ASTM D5185(m)		12	6	12
Calcium	ppm	ASTM D5185(m)		4	4	10
Phosphorus	ppm	ASTM D5185(m)		1	<1	8
Zinc	ppm	ASTM D5185(m)		4	4	8
Sulfur	ppm	ASTM D5185(m)		1044	917	1016
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

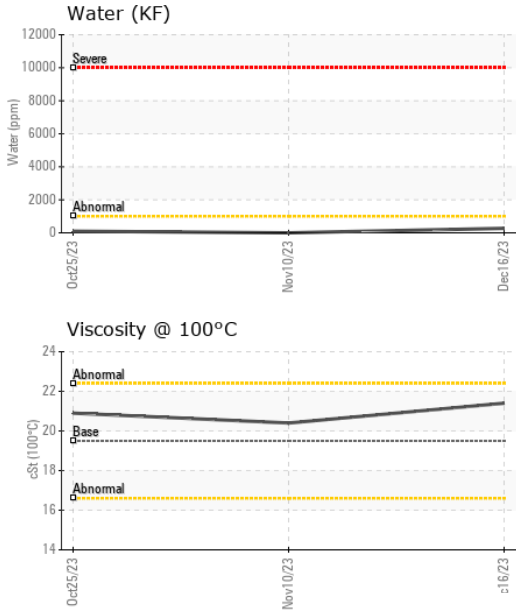
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	7	10	▲ 22
Sodium	ppm	ASTM D5185(m)		<1	1	3
Potassium	ppm	ASTM D5185(m)	>20	1	0	0
Water	%	ASTM D6304*	>0.1	0.027	0.008	0.009
ppm Water	ppm	ASTM D6304*	>1000	271	0	97.8

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		---	0	---
Nitration	Abs/cm	ASTM D7624*	>20	---	3.8	---
Sulfation	Abs.1mm	ASTM D7415*	>30	---	16.1	---



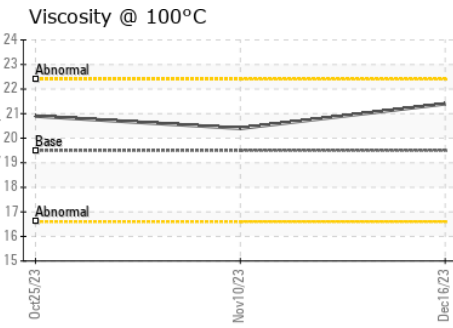
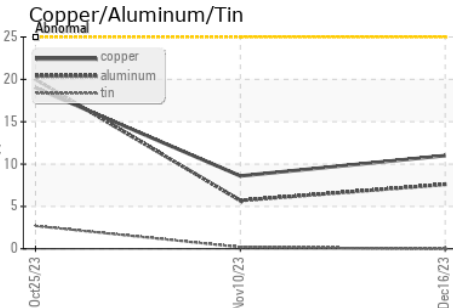
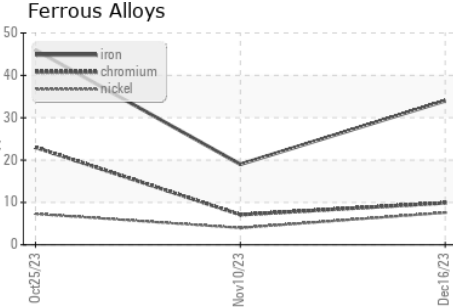
OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	---	9.7	---
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	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	.2%	.2%	.2%
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	19.5	21.4	20.4	20.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0838446 **Received** : 27 Dec 2023
Lab Number : **02605161** **Diagnosed** : 28 Dec 2023
Unique Number : 5698246 **Diagnostician** : Kevin Marson
Test Package : AVI 1 (Additional Tests: FT-IR, KF)

SKYCARE AIR AMBULANCE
 BOX 289, 17 AIRPORT ROAD
 SIOUX LOOKOUT, ON
 CA P8T 1A3
 Contact: Richard Parsons
 richardp@skycare.ca
 T:
 F: (807)737-0040

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.