



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**(C-GQXD)**

Machine Id

**[C-GQXD] PIPER PA31-350 L-949-68A**

Component

**Right Piston Aircraft Engine**

Fluid

**PHILLIPS 66 AVIATION X/C OIL SAE20W50 (12 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0886726</b>	WC0896317	WC0838445
Sample Date		Client Info		<b>18 Apr 2024</b>	18 Mar 2024	16 Dec 2023
TSN	hrs	Client Info		<b>0</b>	0	0
TSO	hrs	Client Info		<b>2690</b>	2637	2434
Oil Age	hrs	Client Info		<b>53</b>	59	64
Filter Age	hrs	Client Info		<b>53</b>	59	64
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>33</b>	36	46
Chromium	ppm	ASTM D5185(m)	>20	<b>8</b>	9	12
Nickel	ppm	ASTM D5185(m)	>15	<b>8</b>	9	13
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>6</b>	6	11
Lead	ppm	ASTM D5185(m)	>20000	<b>8434</b>	8737	8824
Copper	ppm	ASTM D5185(m)	>25	<b>6</b>	7	9
Tin	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

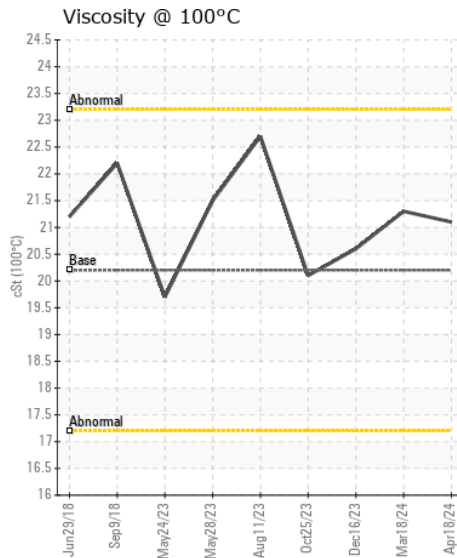
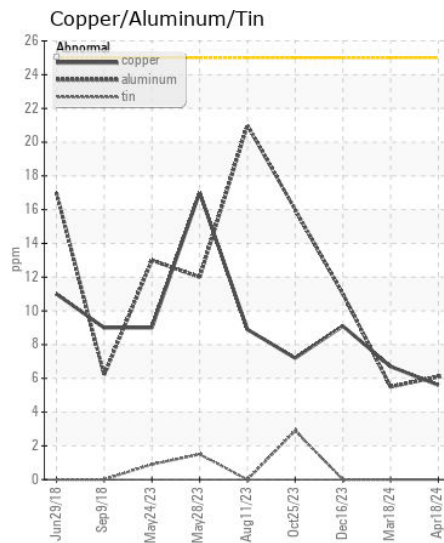
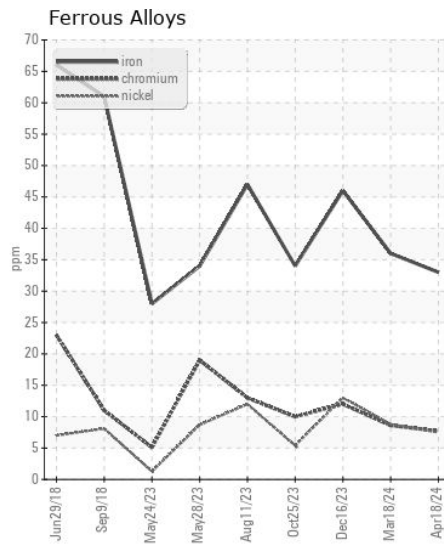
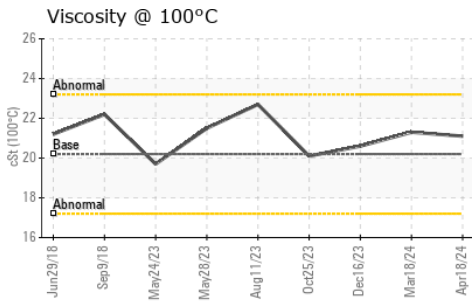
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>3</b>	4	11
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>VLITE</b>	NONE	LIGHT
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	MILKY
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	▲ .2%	.5%

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Barium	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	<b>13</b>	8	12
Calcium	ppm	ASTM D5185(m)	4.7	<b>3</b>	3	1
Phosphorus	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	<1	0
Zinc	ppm	ASTM D5185(m)	0.1	<b>5</b>	5	4
Sulfur	ppm	ASTM D5185(m)	848	<b>979</b>	1031	1036
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	<b>21.1</b>	21.3	20.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0886726  
**Lab Number** : 02631939  
**Unique Number** : 5773092  
**Test Package** : AVI 1  
**Received** : 29 Apr 2024  
**Tested** : 29 Apr 2024  
**Diagnosed** : 30 Apr 2024 - Kevin Marson

**SKYCARE AIR AMBULANCE**  
 BOX 289, 17 AIRPORT ROAD  
 SIOUX LOOKOUT, ON  
 CA P8T 1A3  
 Contact: Jason Murphy  
 prm@skycare.ca  
 T: (807)737-0039  
 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.