



# OIL ANALYSIS REPORT

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

Area  
**(C-GQXX)**  
Machine Id  
**[C-GQXX] PIPER NAVAJO CHIEFTAN RL-989-68A**  
Component  
**Right Piston Aircraft Engine**  
Fluid  
**PHILLIPS 66 AVIATION X/C OIL SAE20W50 (12 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0838450</b>	WC0830827	WC0826682
Sample Date		Client Info		<b>11 Feb 2024</b>	22 Oct 2023	18 Sep 2023
TSN	hrs	Client Info		<b>0</b>	0	0
TSO	hrs	Client Info		<b>685</b>	495	434
Oil Age	hrs	Client Info		<b>46</b>	62	50
Filter Age	hrs	Client Info		<b>46</b>	62	50
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>33</b>	37	31
Chromium	ppm	ASTM D5185(m)	>20	<b>12</b>	13	11
Nickel	ppm	ASTM D5185(m)	>15	<b>14</b>	11	7
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>7</b>	8	8
Lead	ppm	ASTM D5185(m)	>20000	<b>8088</b>	8079	6408
Copper	ppm	ASTM D5185(m)	>25	<b>8</b>	10	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

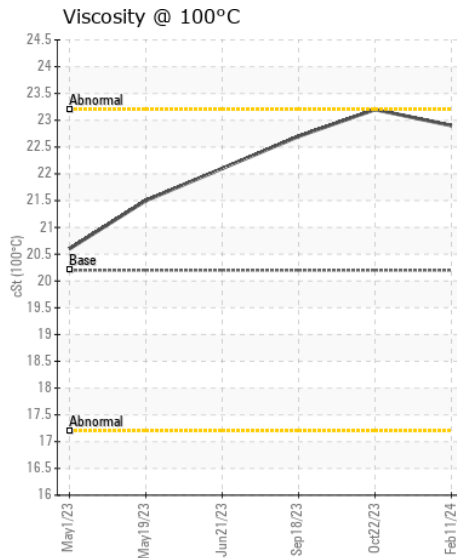
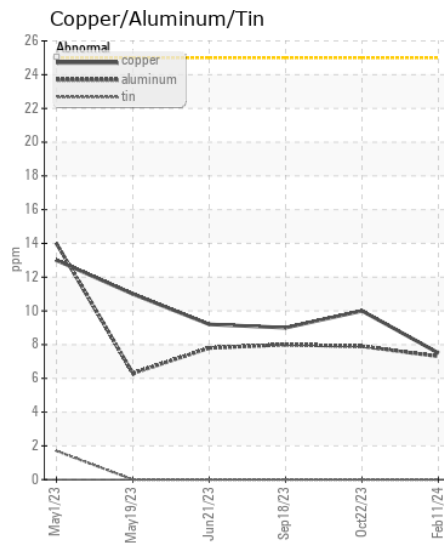
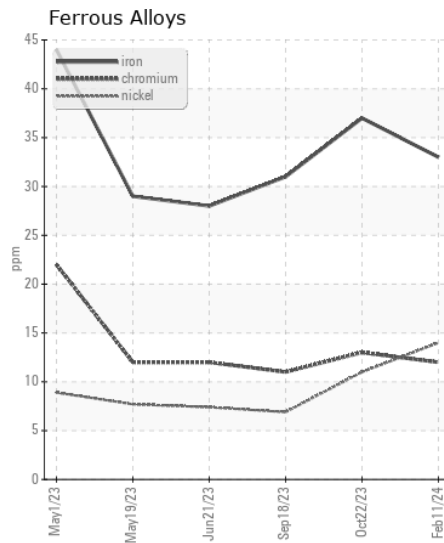
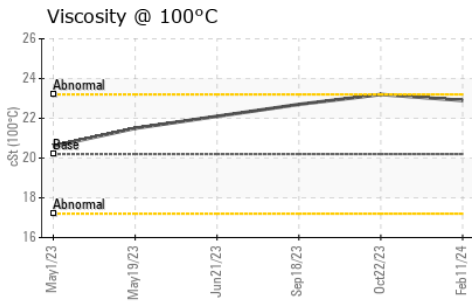
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>6</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
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	NONE
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	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	.2%	.2%

## 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>	<1	<1
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>10</b>	5	2
Calcium	ppm	ASTM D5185(m)	4.7	<b>5</b>	2	<1
Phosphorus	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	0	0
Zinc	ppm	ASTM D5185(m)	0.1	<b>5</b>	4	2
Sulfur	ppm	ASTM D5185(m)	848	<b>1087</b>	976	973
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	<b>22.9</b>	23.2	22.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0838450  
**Lab Number** : 02616632  
**Unique Number** : 5733742  
**Test Package** : AVI 1  
**Received** : 20 Feb 2024  
**Tested** : 20 Feb 2024  
**Diagnosed** : 20 Feb 2024 - Kevin Marson

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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.