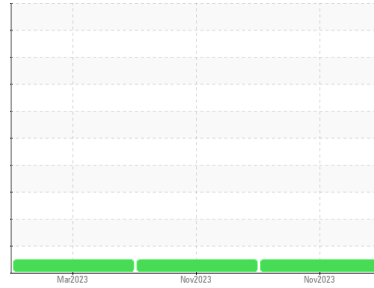




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(C-FWAU) [TASK CARD 12487P]**  
 Machine Id  
**[C-FWAU] BEECHCRAFT 1900D PCE-PS0692**  
 Component  
**Right Jet Turbine**  
 Fluid  
**BP TURBO OIL 2380 (14 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

### Contaminants

The water content is negligible. There is no indication of any contamination in the oil.

### Oil Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0809678</b>	WC0809677	WC0762808
Sample Date	Client Info		<b>30 Nov 2023</b>	29 Nov 2023	23 Mar 2023
TSN	hrs Client Info		<b>5913</b>	5913	4924
TSO	hrs Client Info		<b>5913</b>	5913	4924
Oil Age	hrs Client Info		<b>5913</b>	5913	4924
Oil Changed	Client Info		<b>Not Changd</b>	Not Changd	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m)	>8	<b>0</b>	<1	0
Chromium	ppm ASTM D5185(m)	>2	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m)	>2	<b>0</b>	0	<1
Titanium	ppm ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
Lead	ppm ASTM D5185(m)	>3	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185(m)	>3	<b>&lt;1</b>	<1	0
Tin	ppm ASTM D5185(m)	>2	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)		<b>0</b>	0	<1
Vanadium	ppm ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Barium	ppm ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Molybdenum	ppm ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Calcium	ppm ASTM D5185(m)	0	<b>0</b>	<1	0
Phosphorus	ppm ASTM D5185(m)	2500	<b>2616</b>	2649	2862
Zinc	ppm ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Sulfur	ppm ASTM D5185(m)	0	<b>47</b>	56	1
Lithium	ppm ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

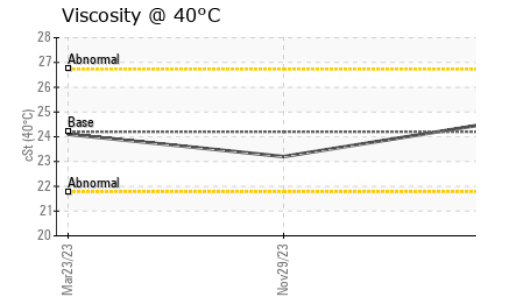
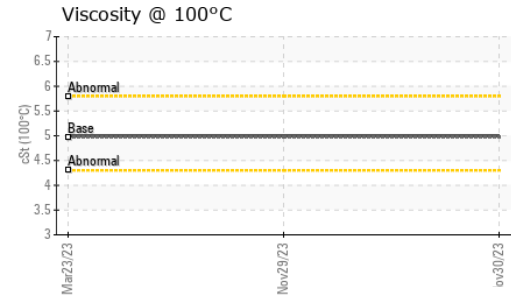
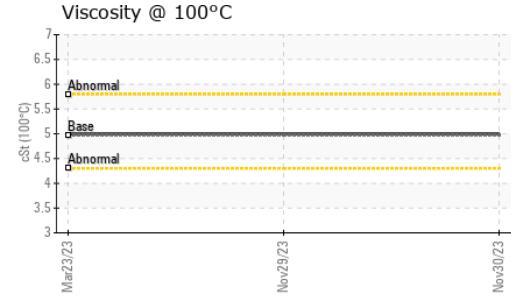
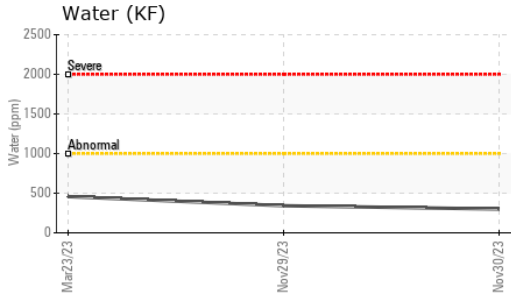
	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>8	<b>0</b>	<1	5
Sodium	ppm ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185(m)	>20	<b>0</b>	0	0
Water	% ASTM D6304*	>0.1	<b>0.030</b>	0.034	0.045
ppm Water	ppm ASTM D6304*	>1000	<b>300</b>	342	457.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.43	<b>0.25</b>	0.25	0.29



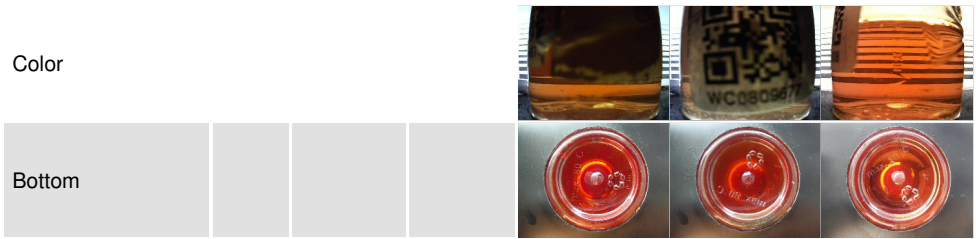
# OIL ANALYSIS REPORT



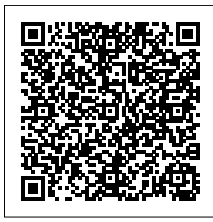
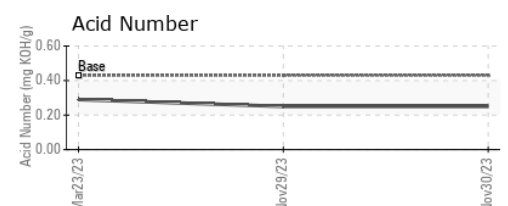
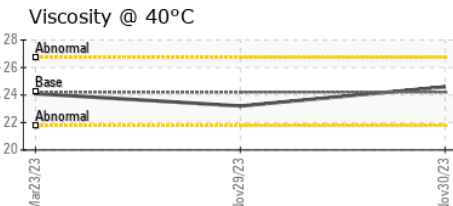
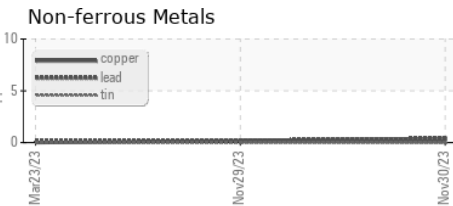
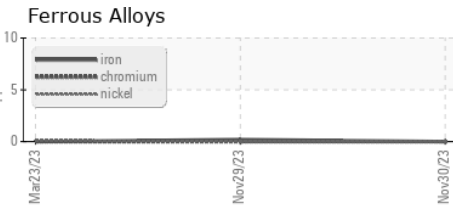
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	<b>24.6</b>	23.2	24.1
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	<b>5</b>	5	5
Viscosity Index (VI)	Scale	ASTM D2270*	134	<b>132</b>	147	137

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0809678 **Received** : 13 Dec 2023  
**Lab Number** : **02602822** **Diagnosed** : 18 Dec 2023  
**Unique Number** : 5695907 **Diagnostician** : Kevin Marson  
**Test Package** : AVI 3

**WASAYA AIRWAYS L.P.**  
 201 KELNER PLACE  
 THUNDER BAY, ON  
 CA P7E 6V3  
 Contact: Leila Richardson  
 lrichardson@wasaya.com  
 T: (807)626-8374  
 F: (807)577-0200

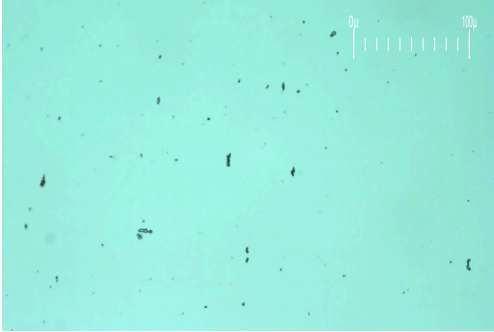
To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.



# FERROGRAPHY REPORT

Area  
**(C-FWAU) [TASK CARD 12487P]**  
 Machine Id  
**[C-FWAU] BEECHCRAFT 1900D PCE-PS0692**  
 Component  
**Right Jet Turbine**  
 Fluid  
**BP TURBO OIL 2380 (14 LTR)**

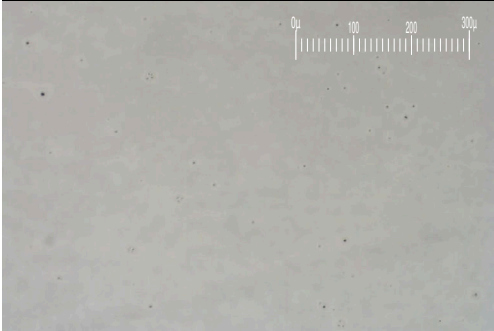
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

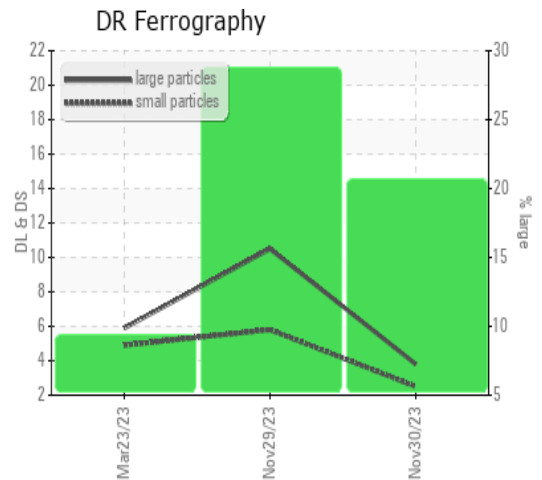


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		<b>3.8</b>	10.5	5.9
Small Particles		DR-Ferr*		<b>2.5</b>	5.8	4.9
Total Particles		DR-Ferr*	>---	<b>6.3</b>	16.3	10.8
Large Particles Percentage	%	DR-Ferr*		<b>20.6</b>	28.8	9.3
Severity Index		DR-Ferr*		<b>5</b>	49	6

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		1	2	1
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1	1	
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*		1		
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		1	1	
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1	2	1

## WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.



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