



# PROBLEM SUMMARY

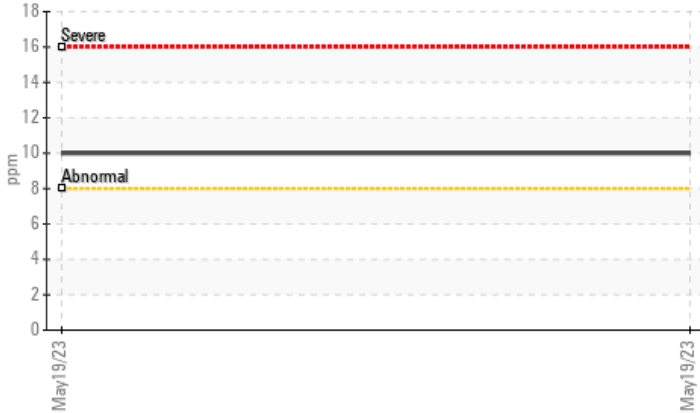
Sample Rating Trend



Area  
**(C-GWOV)**  
 Machine Id  
**[C-GWOV] BEECHCRAFT 1900D PCE-PS0250**  
 Component  
**Right Jet Turbine**  
 Fluid  
**BP TURBO OIL 2380 (14 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Silicon (ppm)



## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Silicon	ppm	ASTM D5185(m)	>8	▲ 10	---	---

Customer Id: WAS317THU  
 Sample No.: WC0762816  
 Lab Number: 02564323  
 Test Package: AVI 3



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend

DIRT

Area  
**(C-GWOV)**  
 Machine Id  
**[C-GWOV] BEEHCRAFT 1900D PCE-PS0250**  
 Component  
**Right Jet Turbine**  
 Fluid  
**BP TURBO OIL 2380 (14 GAL)**



## DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal. The direct-reading & analytical ferrographic results are normal indicating no abnormal wear in the system.

### Contaminants

Elemental level of silicon (Si) above normal indicating ingress of seal material. The water content is negligible.

### Oil Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0762816</b>	---	---
Sample Date	Client Info	<b>19 May 2023</b>	---	---
TSN	hrs Client Info	<b>24546</b>	---	---
TSO	hrs Client Info	<b>5786</b>	---	---
Oil Age	hrs Client Info	<b>5786</b>	---	---
Oil Changed	Client Info	<b>Not Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	---	---
Iron	ppm ASTM D5185(m) >8	<b>0</b>	---	---
Chromium	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Titanium	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Silver	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Aluminum	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Lead	ppm ASTM D5185(m) >3	<b>0</b>	---	---
Copper	ppm ASTM D5185(m) >3	<b>0</b>	---	---
Tin	ppm ASTM D5185(m) >2	<b>0</b>	---	---
Antimony	ppm ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	<b>0</b>	---	---
Barium	ppm ASTM D5185(m) 0	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185(m) 0	<b>0</b>	---	---
Manganese	ppm ASTM D5185(m)	<b>0</b>	---	---
Magnesium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Calcium	ppm ASTM D5185(m) 0	<b>0</b>	---	---
Phosphorus	ppm ASTM D5185(m) 2500	<b>2791</b>	---	---
Zinc	ppm ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Sulfur	ppm ASTM D5185(m) 0	<b>2</b>	---	---
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

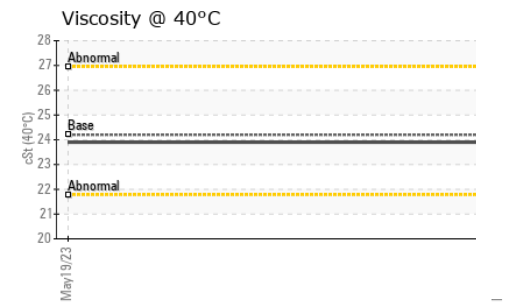
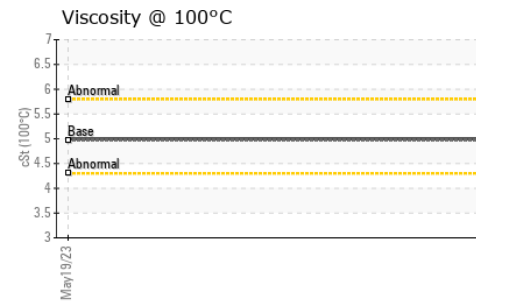
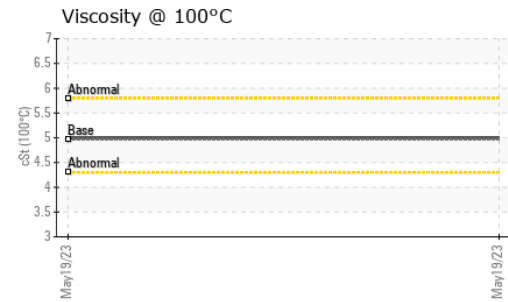
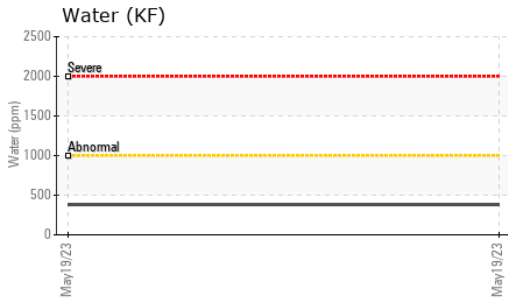
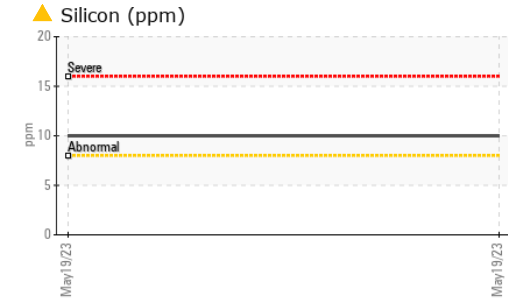
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >8	<b>▲ 10</b>	---	---
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	---	---
Potassium	ppm ASTM D5185(m) >20	<b>0</b>	---	---
Water	% ASTM D6304* >0.1	<b>0.038</b>	---	---
ppm Water	ppm ASTM D6304* >1000	<b>381.9</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974* 0.43	<b>0.22</b>	---	---



# OIL ANALYSIS REPORT



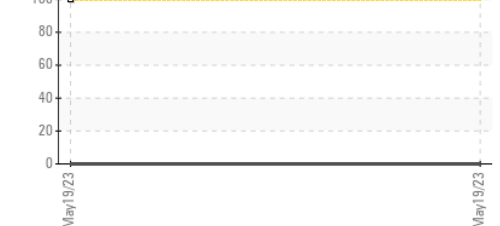
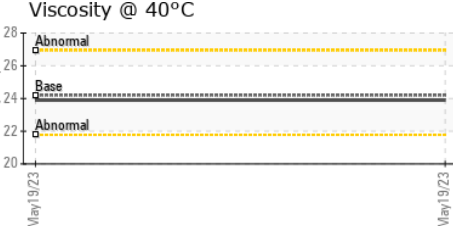
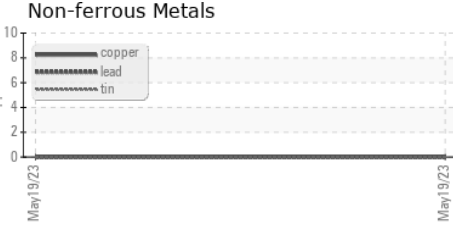
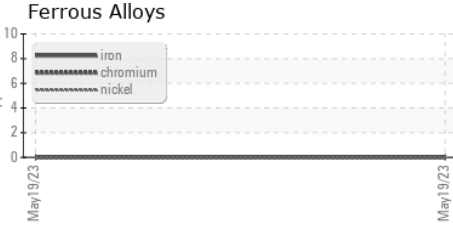
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	23.9	---
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5	---
Viscosity Index (VI)	Scale	ASTM D2270*	134	140	---

## SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0762816 **Received** : 15 Jun 2023  
**Lab Number** : 02564323 **Diagnosed** : 19 Jun 2023  
**Unique Number** : 5593364 **Diagnostician** : Kevin Marson  
**Test Package** : AVI 3 ( Additional Tests: PQ )

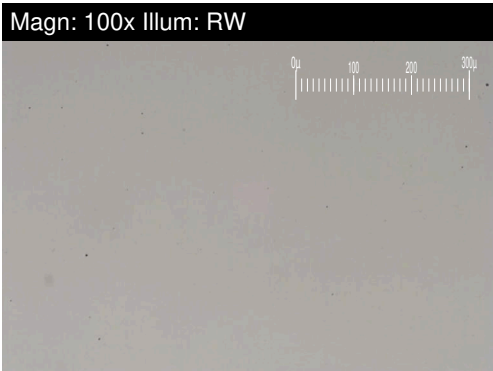
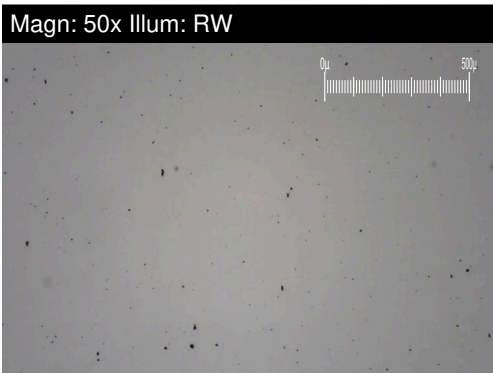
**WASAYA AIRWAYS L.P.**  
 201 KELNER PLACE  
 THUNDER BAY, ON  
 CA P7E 6V3  
 Contact: Leila Richardson  
 lrichardson@wasaya.com  
 T: (807)626-8374  
 F: (807)577-0200

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-GWOV)**  
 Machine Id  
**[C-GWOV] BEEHCRAFT 1900D PCE-PS0250**  
 Component  
**Right Jet Turbine**  
 Fluid  
**BP TURBO OIL 2380 (14 GAL)**

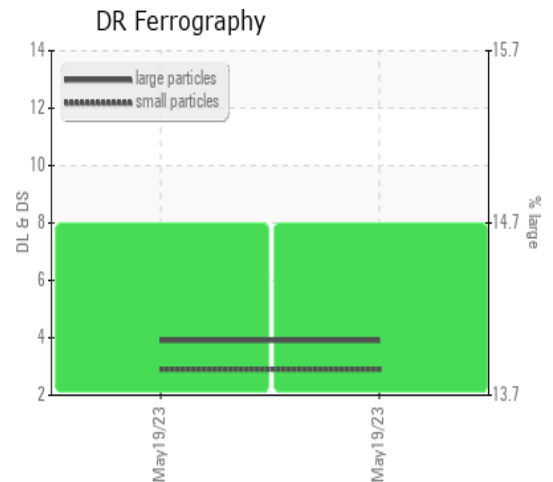


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		<b>3.9</b>	---	---
Small Particles		DR-Ferr*		<b>2.9</b>	---	---
Total Particles		DR-Ferr*	>---	<b>6.8</b>	---	---
Large Particles Percentage	%	DR-Ferr*		<b>14.7</b>	---	---
Severity Index		DR-Ferr*		<b>4</b>	---	---

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
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*		<b>1</b>		
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		<b>1</b>		

### WEAR

All component wear rates are normal.  
 The direct-reading & analytical ferrographic results are normal indicating no abnormal wear in the system.



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