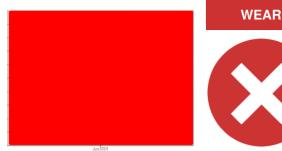


# **PROBLEM SUMMARY**

Sample Rating Trend



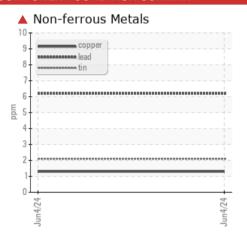
Machine Id

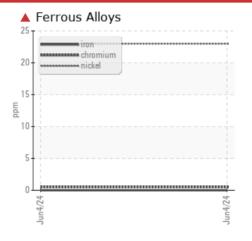
# BEECH 442PL

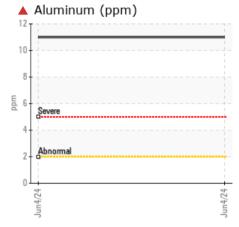
Right Jet Turbine

EASTMAN TURBO OIL 2380 (--- GAL)

## **COMPONENT CONDITION SUMMARY**







## **RECOMMENDATION**

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS									
Sample Status				SEVERE					
Nickel	ppm	ASTM D5185m	>2	<b>2</b> 3					
Aluminum	ppm	ASTM D5185m	>2	<b>▲ 11</b>					
Lead	ppm	ASTM D5185m	>3	<b>A</b> 6		***			
Tin	ppm	ASTM D5185m	>2	<u> </u>					

**Customer Id: STENAS** Sample No.: GF0001703 Lab Number: 06201921 Test Package: AVI 1



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

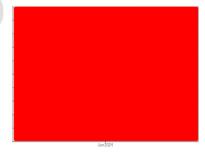
RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.		
Resample			?	We recommend an early resample to monitor this condition.		
Information Required			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.		

## HISTORICAL DIAGNOSIS



# **OIL ANALYSIS REPORT**

Sample Rating Trend





Machine Id

# BEECH 442PL

Component

Right Jet Turbine

Fluid

EASTMAN TURBO OIL 2380 (--- GAL)

## DIAGNOSIS

#### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## ▲ Wear

Aluminum and nickel and lead ppm levels are severe. Tin ppm levels are abnormal.

#### Contamination

There is no indication of any contamination in the oil.

## **Fluid Condition**

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GF0001703		
Sample Date		Client Info		04 Jun 2024		
TSN	hrs	Client Info		5698		
TSO	hrs	Client Info		2098		
Oil Age	hrs	Client Info		2098		
Oil Changed		Client Info		Not Changd		
Sample Status				SEVERE		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	0		
Chromium	ppm	ASTM D5185m	>2	<1		
Nickel	ppm	ASTM D5185m	>2	<b>2</b> 3		
Titanium	ppm	ASTM D5185m	>2	<1		
Silver	ppm	ASTM D5185m	>2	1		
Aluminum	ppm	ASTM D5185m	>2	<b>▲</b> 11		
Lead	ppm	ASTM D5185m	>3	<u>▲</u> 6		
Copper	ppm	ASTM D5185m		1		
Tin	ppm	ASTM D5185m	>2	<u>^</u> 2		
Vanadium	ppm	ASTM D5185m		1		
Cadmium	ppm	ASTM D5185m		<1		
	1-1-					
ADDITIVEC		mathad	limit/bass	ourront.	historyd	hiotom/0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	0 0		,
Boron Barium Molybdenum		ASTM D5185m ASTM D5185m ASTM D5185m	0	0 0 0		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 0 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 0 <1 17		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0	0 0 0 <1 17		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 0 <1 17 0 1375		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0	0 0 0 <1 17		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 0 2500	0 0 0 <1 17 0 1375		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 0 2500	0 0 0 <1 17 0 1375		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 0 2500 0	0 0 0 <1 17 0 1375 0		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 0 0 2500 0 0 limit/base	0 0 0 <1 17 0 1375 0 0		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 0 0 2500 0 0 limit/base	0 0 0 <1 17 0 1375 0 0		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 0 2500 0 0 limit/base	0 0 0 <1 17 0 1375 0 0 current <1 32		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 0 2500 0 0 limit/base >8	0 0 0 <1 17 0 1375 0 0 current <1 32		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 0 2500 0 0 limit/base >8 >20	0 0 0 <1 17 0 1375 0 0 current <1 32 70		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 2500 0 0 limit/base >8 >20 limit/base	0 0 0 -<1 17 0 1375 0 0 current <1 32 70 current NONE		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  *Visual  *Visual	0 0 0 0 0 2500 0 0 limit/base >8 >20 limit/base NONE	0 0 0 -<1 17 0 1375 0 0 current <1 32 70 current NONE	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  MEthod  *Visual  *Visual	0 0 0 0 0 2500 0 0 limit/base >8 >20 limit/base NONE NONE	0 0 0 -<1 17 0 1375 0 0 current <1 32 70 current NONE NONE	history1 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm	ASTM D5185m  MEthod  ASTM D5185m ASTM D5185m  MEthod  *Visual  *Visual  *Visual  *Visual	0 0 0 0 0 2500 0 0 limit/base >8 >20 limit/base NONE NONE	0 0 0 17 17 0 1375 0 0 current <1 32 70 current NONE NONE NONE	history1 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  METHOD  ASTM D5185m  METHOD  *Visual  *Visual  *Visual  *Visual  *Visual  *Visual	0 0 0 0 0 2500 0 0 limit/base >8 >20 limit/base NONE NONE NONE	0 0 0 0 1375 0 1375 0 0 current <1 32 70 current NONE NONE NONE NONE NONE NONE NONE		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  ASTM D5185m  **STM D5185m ASTM D5185m ASTM D5185m  **STM D5185m  **Visual  **Visual  **Visual  **Visual  **Visual  **Visual  **Visual  **Visual	0 0 0 0 0 2500 0 0 limit/base >8 >20 limit/base NONE NONE NONE NONE NONE	0 0 0 0 17 17 0 1375 0 0 current <1 32 70 current NONE NONE NONE NONE NONE NONE NONE NON		history2

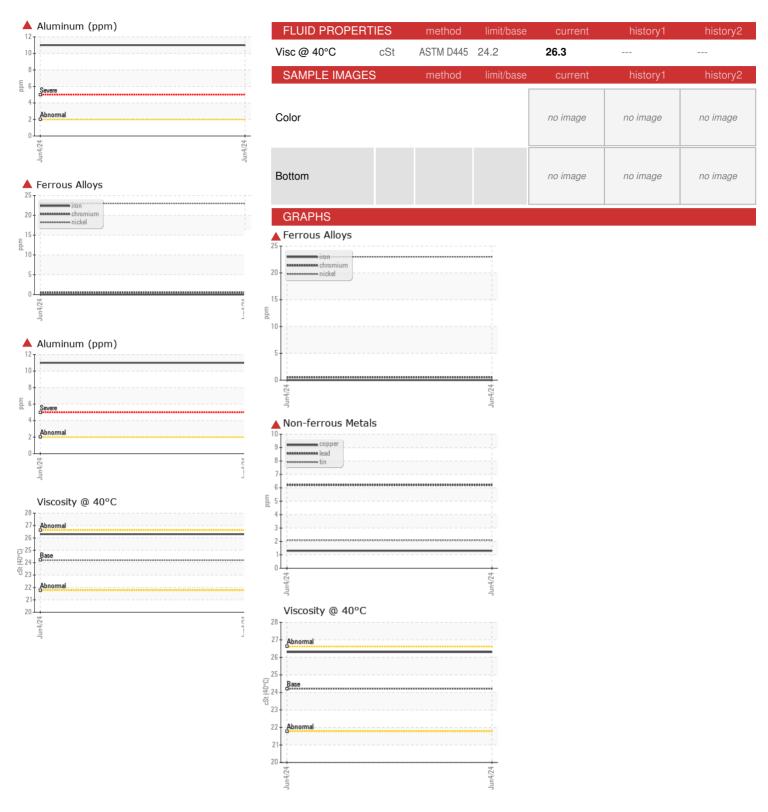
ubmitted By: MARK MCCRARY

NEG

scalar \*Visual



# **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No. : GF0001703 Lab Number : 06201921 Unique Number : 11069382 Test Package : AVI 1

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 06 Jun 2024 **Tested** : 11 Jun 2024

Diagnosed : 11 Jun 2024 - Jonathan Hester

1280 THUNDERBIRD DR SMYRNA, TN US 37167

STEVENS AEROSPACE AND DEFENSE SYSTEMS, LLC

Contact: PATRICK ISRAEL pisrael@stevensaerospace.com

T: (615)365-2132 F: (615)365-0966

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)