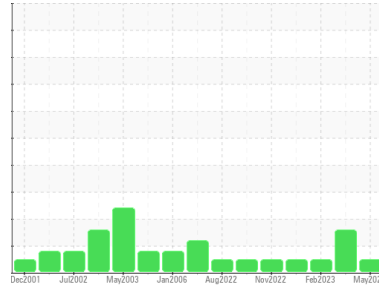




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**07-TG001 (S/N 17137)**

Component  
**Turbine**  
Fluid  
**ESSO TERESSO ISO 46 (3576 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

### Fluid 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>WC0667347</b>	WC0667346	WC0667345
Sample Date	Client Info		<b>24 May 2023</b>	02 May 2023	09 Feb 2023
Machine Age	yrs	Client Info	<b>38</b>	38	38
Oil Age	yrs	Client Info	<b>13</b>	13	13
Oil Changed	Client Info		<b>N/A</b>	N/A	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m) >4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >10	<b>0</b>	<1	0
Lead	ppm	ASTM D5185(m)	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Tin	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
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)	<b>0</b>	0	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>0</b>	<1	<1
Calcium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185(m) 2.4	<b>&lt;1</b>	<1	<1
Zinc	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Sulfur	ppm	ASTM D5185(m)	<b>1847</b>	1825	1829
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

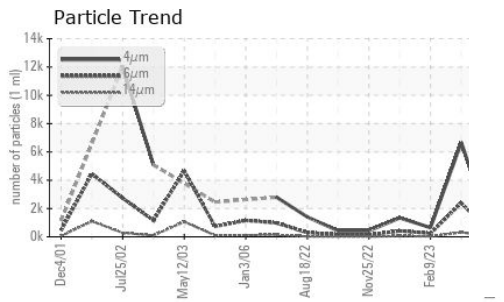
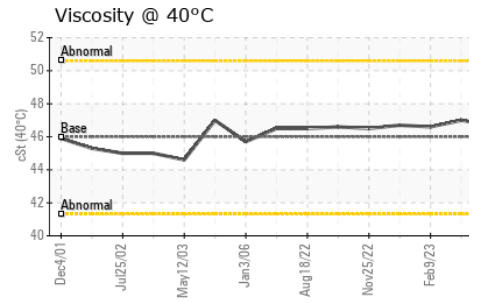
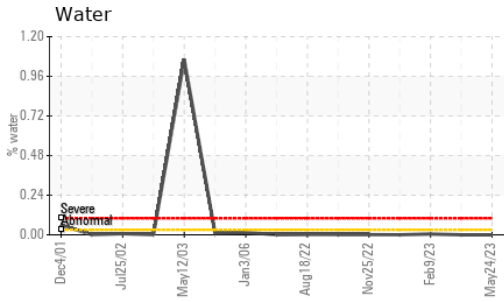
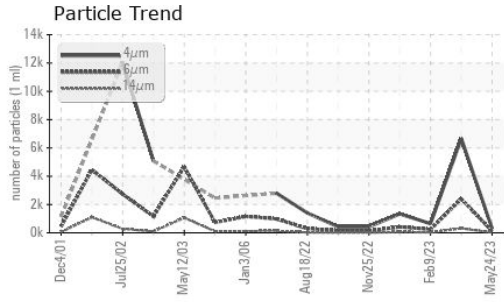
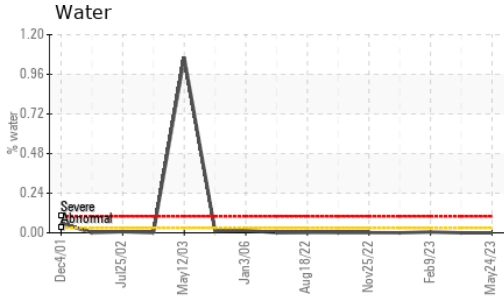
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>2</b>	1	1
Sodium	ppm	ASTM D5185(m)	<b>2</b>	2	1
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1
Water	%	ASTM D6304* >0.03	<b>0.00</b>	0.00	0.005
ppm Water	ppm	ASTM D6304* >300	<b>0.00</b>	0.00	54.7

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>308</b>	6664	648
Particles >6µm	ASTM D7647	>640	<b>123</b>	▲ 2395	231
Particles >14µm	ASTM D7647	>80	<b>21</b>	▲ 316	29
Particles >21µm	ASTM D7647	>20	<b>8</b>	▲ 101	7
Particles >38µm	ASTM D7647	>4	<b>1</b>	4	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>--/16/13	<b>15/14/12</b>	▲ 20/18/15	17/15/12



# OIL ANALYSIS REPORT

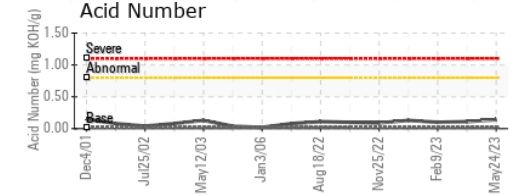
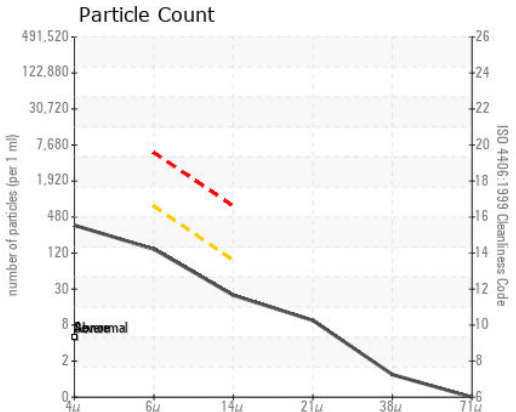
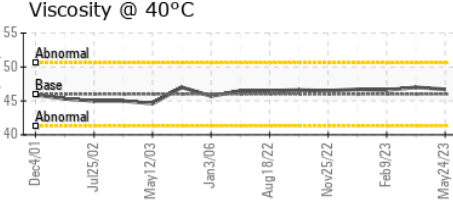
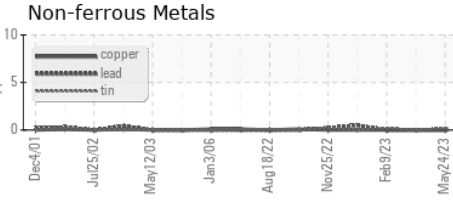
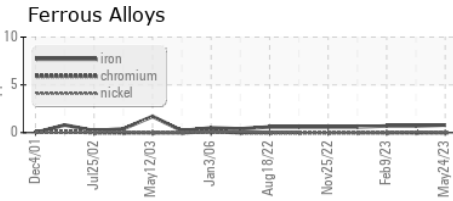


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.14</b>	0.11	0.10
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</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*	>0.03	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>46.7</b>	47.0	46.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0667347  
**Lab Number** : 02559840  
**Unique Number** : 5580880  
**Test Package** : IND 2

**GreenFirst Forest Products**  
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 Contact: Jeff Snow  
 Jeff.Snow@rayonieram.com  
 T: (705)864-0593  
 F: (705)864-0598

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.