

Area

[450316344]

Machine Id

**CG-062105 AFT CENTER THRUSTER**

Component

**Steering**

Fluid

{not provided} (--- GAL)



## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the fluid.

### Fluid Condition

The AN level is acceptable for this fluid. The fluid 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>PC</b>	---	---
Sample Date	Client Info		<b>13 Apr 2024</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	<b>7</b>	---
Chromium	ppm	ASTM D5185(m)	>15	<b>0</b>	---
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---
Aluminum	ppm	ASTM D5185(m)	>5	<b>0</b>	---
Lead	ppm	ASTM D5185(m)	>10	<b>0</b>	---
Copper	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185(m)	>5	<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)		<b>2</b>	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Calcium	ppm	ASTM D5185(m)		<b>2</b>	---
Phosphorus	ppm	ASTM D5185(m)		<b>284</b>	---
Zinc	ppm	ASTM D5185(m)		<b>6</b>	---
Sulfur	ppm	ASTM D5185(m)		<b>7141</b>	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---

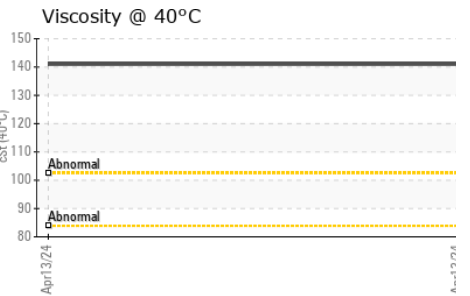
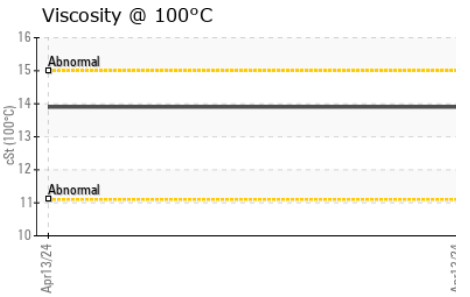
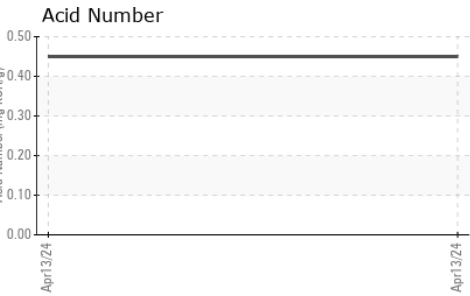
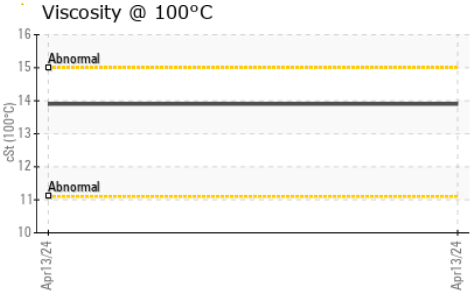
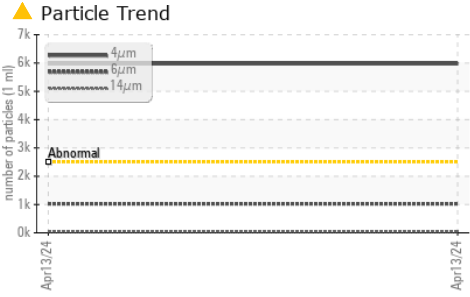
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>1</b>	---
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>▲ 5973</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>● 1024</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>46</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>8</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>2</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>▲ 20/17/13</b>	---	---

# OIL ANALYSIS REPORT



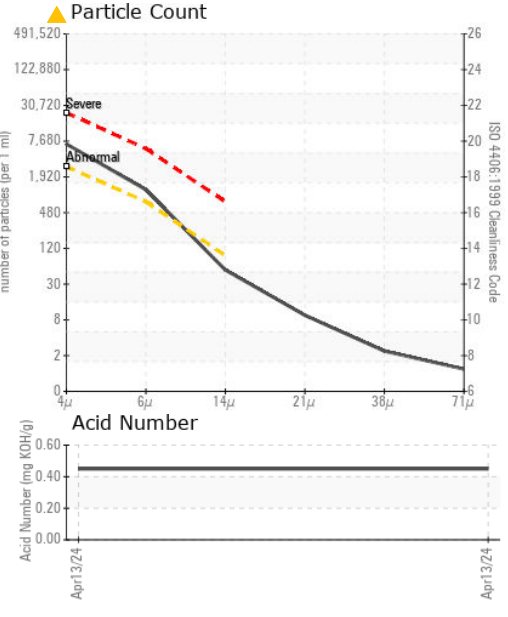
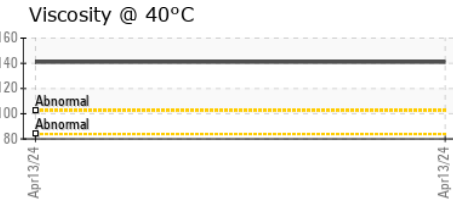
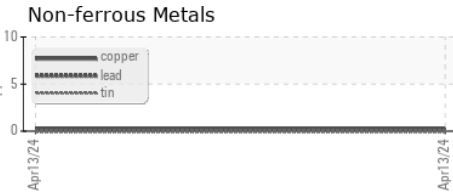
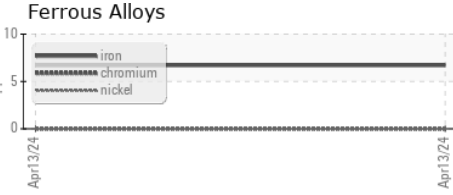
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.45</b>	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		<b>141</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.9</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		<b>94</b>	---	---

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.** : PC  
**Lab Number** : 02634772  
**Unique Number** : 5775925  
**Test Package** : MAR 2 ( Additional Tests: KV100, PrtCount, VI )  
**Received** : 10 May 2024  
**Tested** : 17 May 2024  
**Diagnosed** : 17 May 2024 - Kevin Marson

**Suncor - Terra Nova Projects**  
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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.