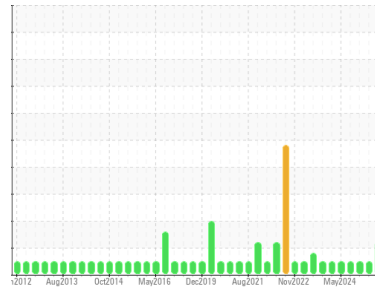




# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISUAL METAL



Area

**SAB1**

Machine Id

**SAB1 G9**

Component

**Thrust Bearing**

Fluid

**ESSO TERESSO ISO 46 (4250 LTR)**

### DIAGNOSIS

#### Recommendation

We advise that you check for visible metal particles in the oil. We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

#### Wear

Light concentration of visible metal present. All other component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. 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>WC0933983</b>	WC0565947	WC0565946
Sample Date	Client Info		<b>03 Jul 2024</b>	25 May 2024	25 May 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>MARGINAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>2	<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>85	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</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)	>40	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>60	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>7	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
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>	0	0
Calcium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Phosphorus	ppm	ASTM D5185(m)	2.4	<b>3</b>	3	3
Zinc	ppm	ASTM D5185(m)	0	<b>1</b>	1	1
Sulfur	ppm	ASTM D5185(m)		<b>669</b>	637	632
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

### CONTAMINANTS

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

### FLUID CLEANLINESS

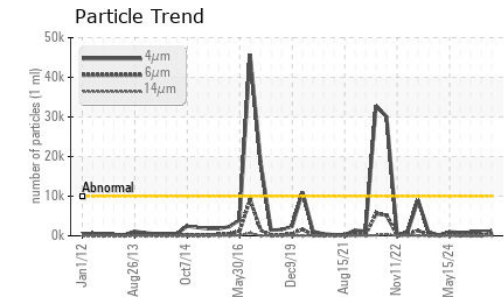
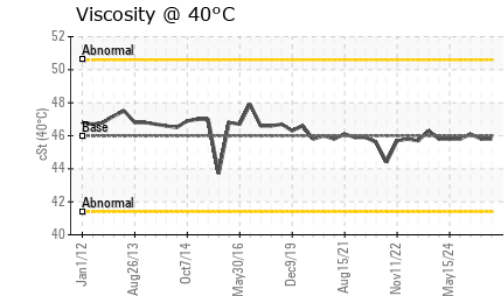
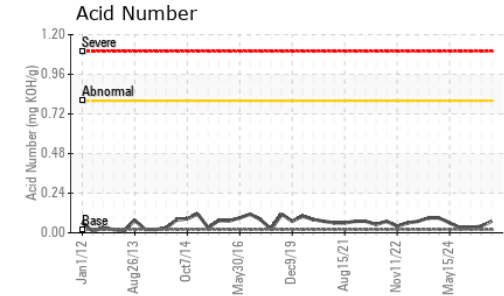
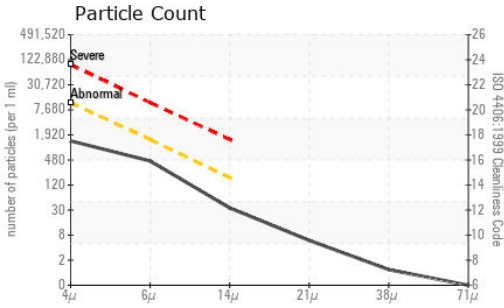
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>1209</b>	840	898
Particles >6µm	ASTM D7647	>1300	<b>398</b>	86	119
Particles >14µm	ASTM D7647	>160	<b>30</b>	5	11
Particles >21µm	ASTM D7647	>40	<b>5</b>	2	3
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/17/14	<b>17/16/12</b>	17/14/10	17/14/11

Particle Filter (Magn: 100 x)





# OIL ANALYSIS REPORT

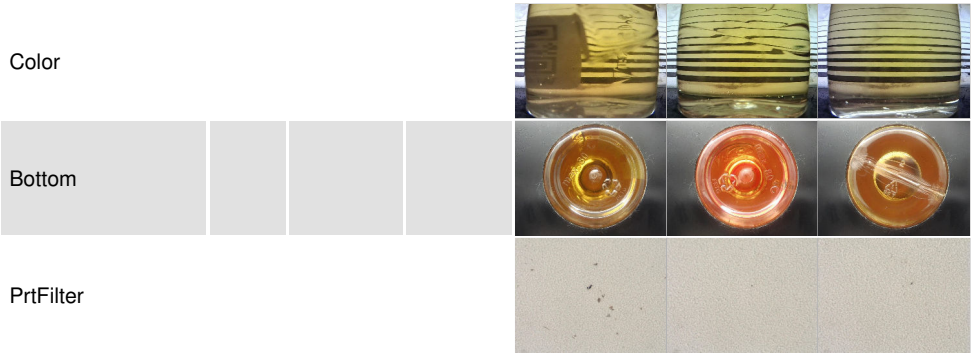


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.07</b>	0.04	0.03

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	▲ <b>VLITE</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*	>2	<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>45.8</b>	45.8	46.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0933983  
**Lab Number** : **02645490**  
**Unique Number** : 5803029  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FilterPatch, PrtFilter, TAN Man )

**Ontario Power Generation**  
 NIAGARA PLANT GROUP,, 14000 NIAGARA PKWY  
 NIAGARA ON THE LAKE, ON  
 CA L0S 1J0  
 Contact: Michael Brochu  
 mike.brochu@opg.com  
 T: (905)357-0322  
 F: (905)374-5466

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.