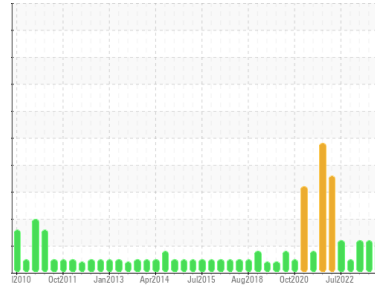




# PROBLEM SUMMARY

## Sample Rating Trend



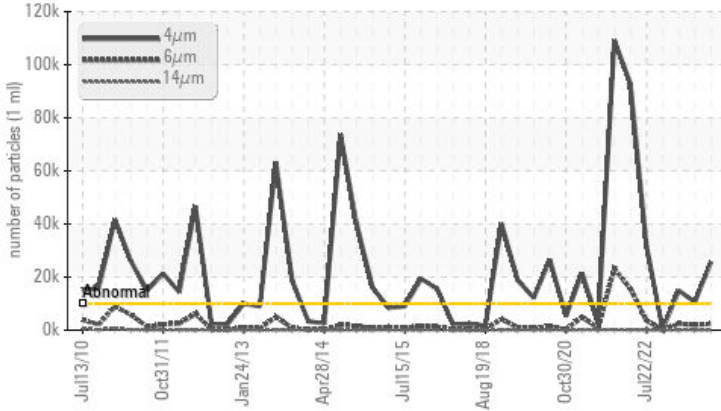
ISO



Area  
**SAB1**  
 Machine Id  
**SAB1 G10**  
 Component  
**Turbine Bearing**  
 Fluid  
**ESSO TERESSO ISO 46 (150 LTR)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	ATTENTION	ATTENTION
Particles >4µm	ASTM D7647	>10000	▲ <b>25656</b>	▲ 10626	▲ 14876
Particles >6µm	ASTM D7647	>1300	▲ <b>2408</b>	▲ 1877	▲ 2422
Oil Cleanliness	ISO 4406 (c)	>20/17/14	▲ <b>22/18/11</b>	▲ 21/18/12	▲ 21/18/13

Customer Id: ONTQUE  
 Sample No.: WC0828607  
 Lab Number: 02578786  
 Test Package: IND 2



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
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

### 27 Mar 2023 Diag: Kevin Marson

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 11 Nov 2022 Diag: Kevin Marson

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 27 Sep 2022 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

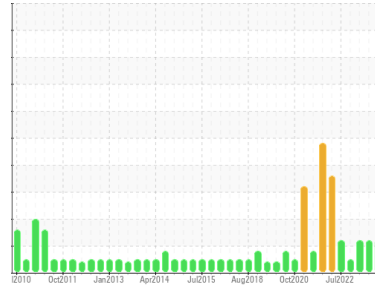
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**SAB1**  
 Machine Id  
**SAB1 G10**  
 Component  
**Turbine Bearing**  
 Fluid  
**ESSO TERESSO ISO 46 (150 LTR)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

### Fluid 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>WC0828607</b>	WC0642831	WC0587286
Sample Date	Client Info		<b>27 Aug 2023</b>	27 Mar 2023	11 Nov 2022
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>ABNORMAL</b>	ATTENTION	ATTENTION

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m) >7	<b>2</b>	2	1
Chromium	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	<1	<1
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) >2	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m) >33	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >6	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
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

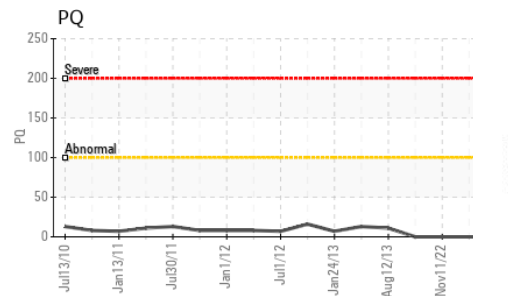
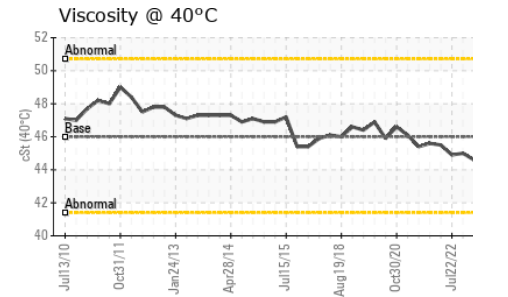
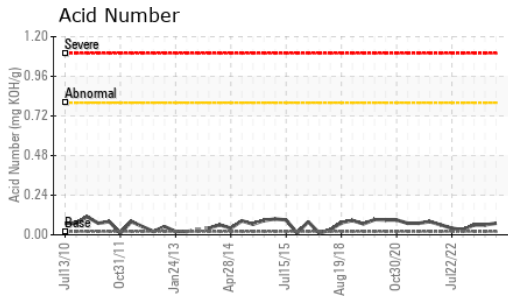
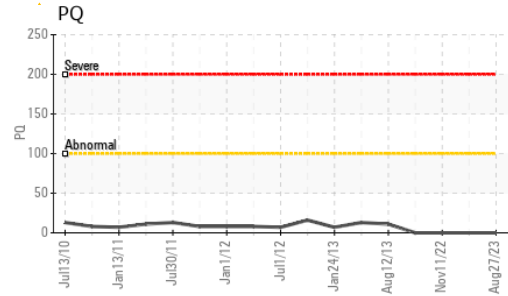
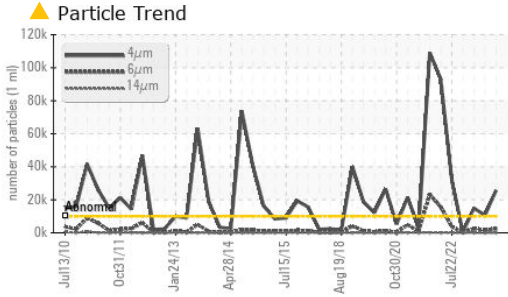
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185(m) 0	<b>2</b>	0	0
Phosphorus	ppm	ASTM D5185(m) 2.4	<b>11</b>	11	11
Zinc	ppm	ASTM D5185(m) 0	<b>2</b>	1	1
Sulfur	ppm	ASTM D5185(m)	<b>761</b>	788	776
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>3</b>	2	2
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	0	<1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>▲ 25656</b>	▲ 10626	▲ 14876
Particles >6µm	ASTM D7647	>1300	<b>▲ 2408</b>	▲ 1877	▲ 2422
Particles >14µm	ASTM D7647	>160	<b>13</b>	37	59
Particles >21µm	ASTM D7647	>40	<b>3</b>	4	11
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/17/14	<b>▲ 22/18/11</b>	▲ 21/18/12	▲ 21/18/13

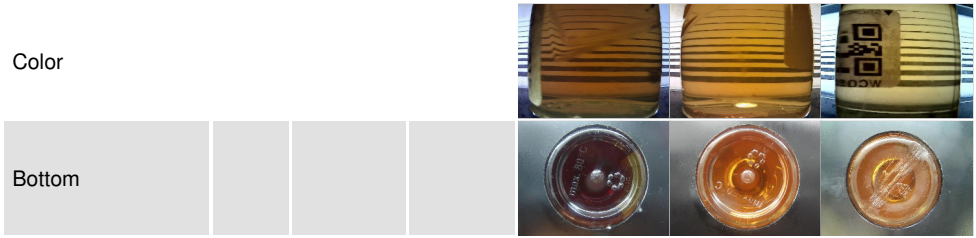


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.07</b>	0.06	0.06

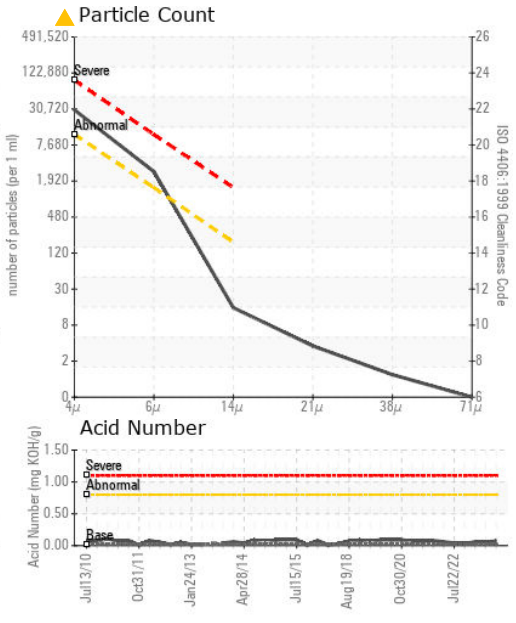
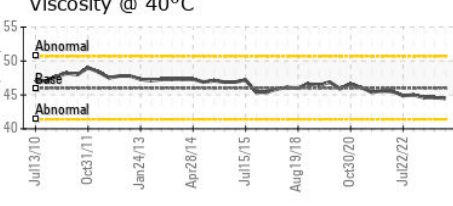
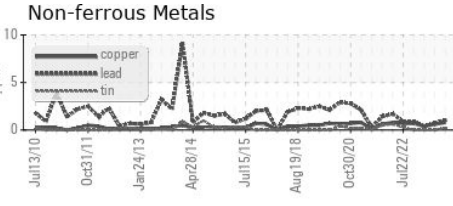
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	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*	>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>44.5</b>	44.6	44.6

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0828607  
**Lab Number** : **02578786**      **Received** : 28 Aug 2023  
**Unique Number** : 5631846      **Diagnosed** : 29 Aug 2023  
**Test Package** : IND 2 ( Additional Tests: PQ, PrtCount, TAN Man )      **Diagnostician** : Kevin Marson

**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.