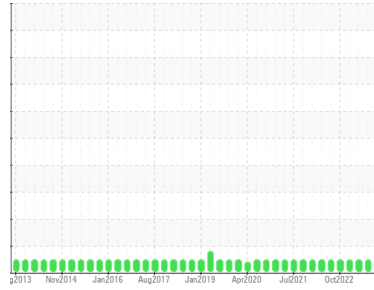




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
SAB2
Machine Id
SAB2 G14 Governor
Component
Hydraulic System
Fluid
ESSO TERESSO ISO 46 (6160 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. 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

Component wear rates appear to be normal (unconfirmed).

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	WC0858067	WC0830367	WC0780513
Sample Date	Client Info	25 Oct 2023	31 Jul 2023	05 Jun 2023
Machine Age	hrs Client Info	0	0	0
Oil Age	hrs Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>20	<1	<1	<1
Chromium ppm ASTM D5185(m)	>20	0	0	0
Nickel ppm ASTM D5185(m)	>20	0	0	0
Titanium ppm ASTM D5185(m)		0	0	0
Silver ppm ASTM D5185(m)		<1	0	0
Aluminum ppm ASTM D5185(m)	>20	<1	<1	<1
Lead ppm ASTM D5185(m)	>20	1	1	<1
Copper ppm ASTM D5185(m)	>20	<1	<1	0
Tin ppm ASTM D5185(m)	>20	0	0	0
Antimony ppm ASTM D5185(m)		0	0	<1
Vanadium ppm ASTM D5185(m)		0	0	0
Beryllium ppm ASTM D5185(m)		0	0	0
Cadmium ppm ASTM D5185(m)		0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185(m)	0	<1	<1	<1
Barium ppm ASTM D5185(m)		<1	0	0
Molybdenum ppm ASTM D5185(m)	0	0	0	0
Manganese ppm ASTM D5185(m)		0	0	0
Magnesium ppm ASTM D5185(m)	0	0	<1	0
Calcium ppm ASTM D5185(m)	0	<1	<1	0
Phosphorus ppm ASTM D5185(m)	2.4	1	1	0
Zinc ppm ASTM D5185(m)	0	1	2	<1
Sulfur ppm ASTM D5185(m)		1764	1945	1809
Lithium ppm ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

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

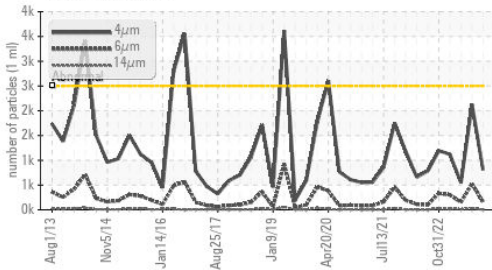
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>2500	806	2126	549
Particles >6µm ASTM D7647	>640	158	529	151
Particles >14µm ASTM D7647	>80	4	27	11
Particles >21µm ASTM D7647	>20	1	6	3
Particles >38µm ASTM D7647	>4	1	0	0
Particles >71µm ASTM D7647	>3	0	0	0
Oil Cleanliness ISO 4406 (c)	>18/16/13	17/14/9	18/16/12	16/14/11

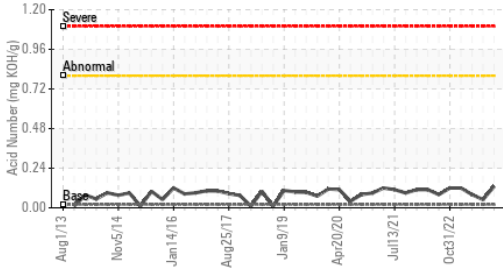
FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D974*	0.02	0.13	0.05	0.08

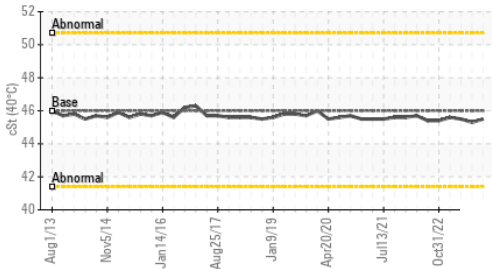
Particle Trend



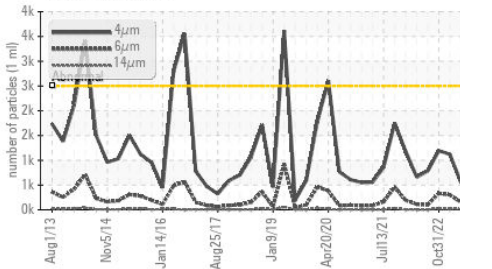
Acid Number



Viscosity @ 40°C



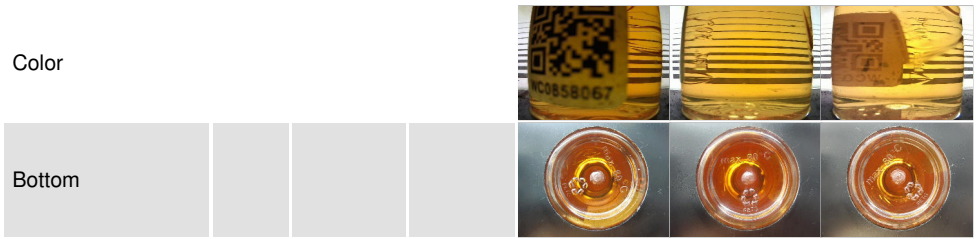
Particle Trend



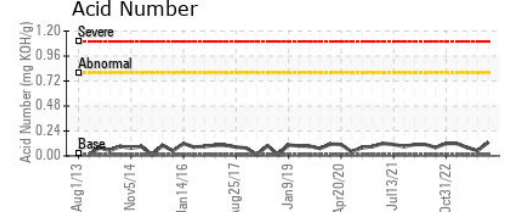
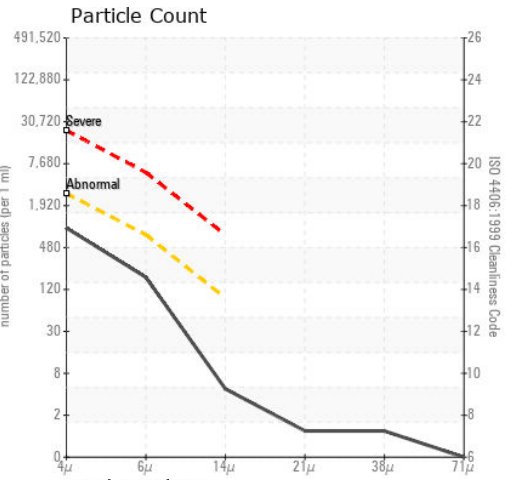
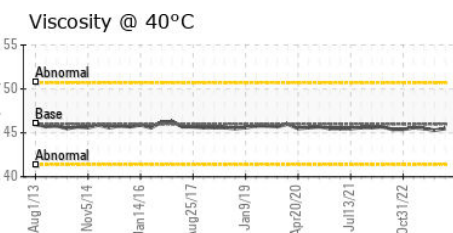
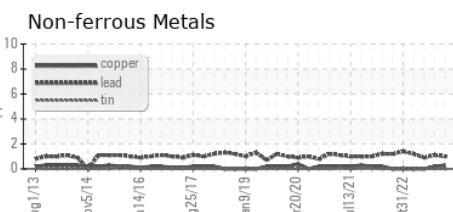
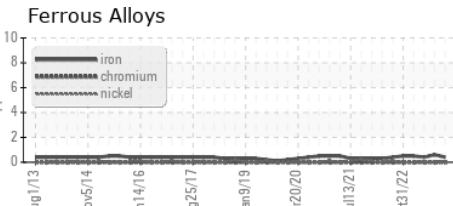
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	45.5	45.3

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. : WC0858067 **Received** : 26 Oct 2023
Lab Number : 02592060 **Diagnosed** : 27 Oct 2023
Unique Number : 5669139 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

Ontario Power Generation
 NIAGARA PLANT GROUP, 14000 NIAGARA PKWY
 NIAGARA ON THE LAKE, ON
 CA L0S 1J0
 Contact: Alex Courtemanche
 alex.courtemanche@opg.com
 T: (905)357-0322
 F: (905)357-6558

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.