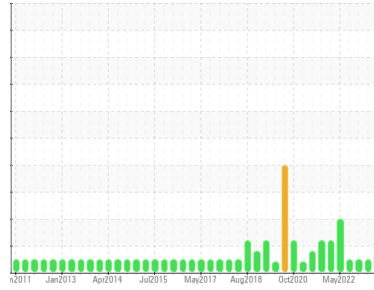




PROBLEM SUMMARY

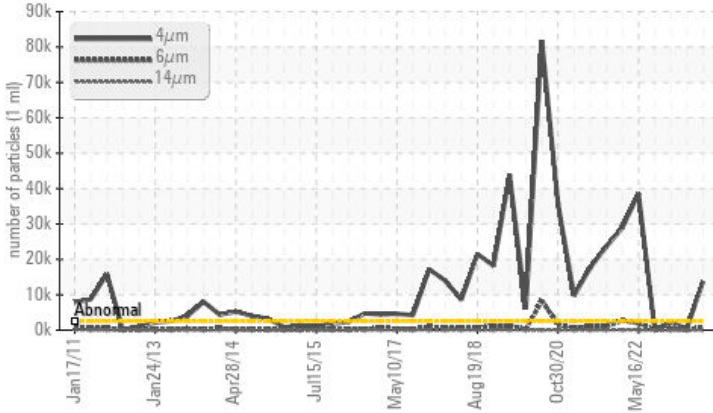
Area
SAB1
 Machine Id
SAB1 G7 Governor Sump
 Component
Hydraulic System
 Fluid
ESSO TERESSO ISO 46 (1600 LTR)

Sample Rating Trend



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			ABNORMAL	NORMAL	NORMAL
Particles >4µm	ASTM D7647	>2500	▲ 13756	426	2143
Particles >6µm	ASTM D7647	>640	▲ 918	125	442
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/17/10	16/14/10	18/16/11

Customer Id: ONTQUE
 Sample No.: WC0828627
 Lab Number: 02578783
 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

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
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

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



14 Nov 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



27 Sep 2022 Diag: Kevin Marson

NORMAL



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. Component wear rates appear to be normal (unconfirmed). 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.

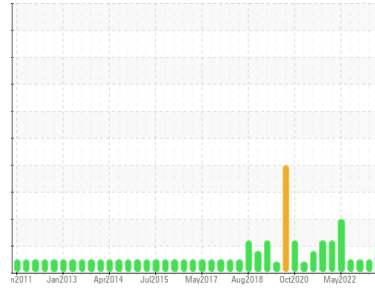
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
SAB1
Machine Id
SAB1 G7 Governor Sump
Component
Hydraulic System
Fluid
ESSO TERESSO ISO 46 (1600 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	WC0828627	WC0642879	WC0587306
Sample Date	Client Info	27 Aug 2023	27 Mar 2023	14 Nov 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	2	2	2
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	<1	0	0
Lead	ppm	ASTM D5185(m) >20	<1	<1	<1
Copper	ppm	ASTM D5185(m) >20	<1	<1	<1
Tin	ppm	ASTM D5185(m) >20	<1	0	<1
Antimony	ppm	ASTM D5185(m)	0	<1	<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)	0	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	<1	0	0
Calcium	ppm	ASTM D5185(m) 0	<1	0	<1
Phosphorus	ppm	ASTM D5185(m) 2.4	3	3	3
Zinc	ppm	ASTM D5185(m) 0	2	2	2
Sulfur	ppm	ASTM D5185(m)	1194	1318	1336
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

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

FLUID CLEANLINESS

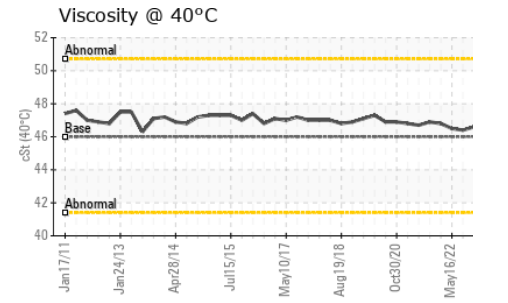
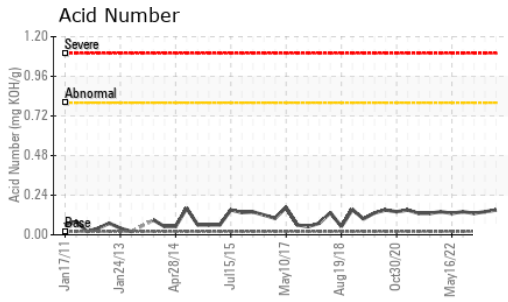
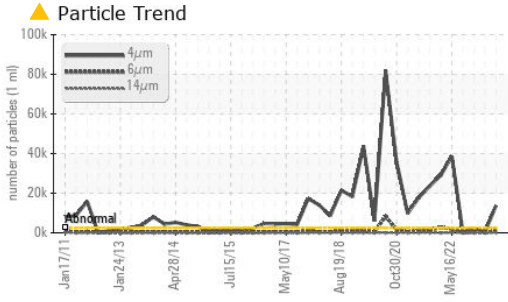
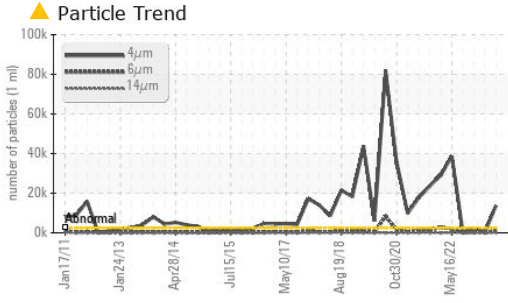
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >2500	▲ 13756	426	2143
Particles >6µm	ASTM D7647 >640	▲ 918	125	442
Particles >14µm	ASTM D7647 >80	8	10	20
Particles >21µm	ASTM D7647 >20	3	3	6
Particles >38µm	ASTM D7647 >4	0	1	1
Particles >71µm	ASTM D7647 >3	0	1	1
Oil Cleanliness	ISO 4406 (c) >18/16/13	▲ 21/17/10	16/14/10	18/16/11

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974* 0.02	0.15	0.14	0.13



OIL ANALYSIS REPORT

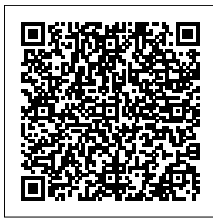
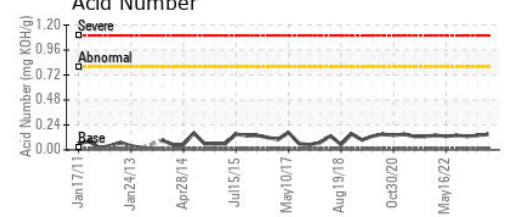
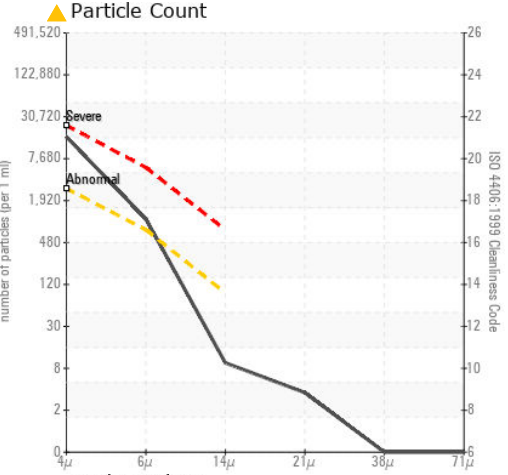
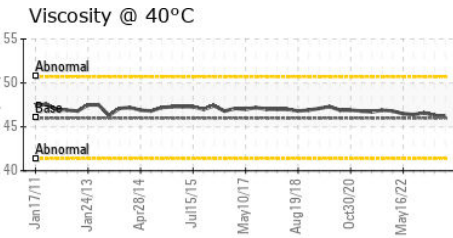
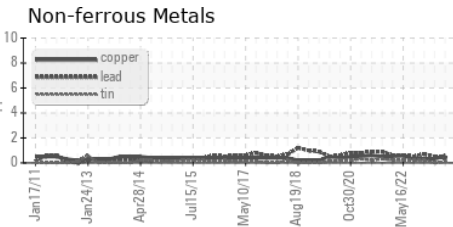
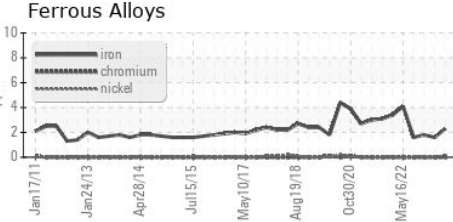


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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	46.3	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. : WC0828627 **Received** : 28 Aug 2023
Lab Number : 02578783 **Diagnosed** : 29 Aug 2023
Unique Number : 5631843 **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: 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.