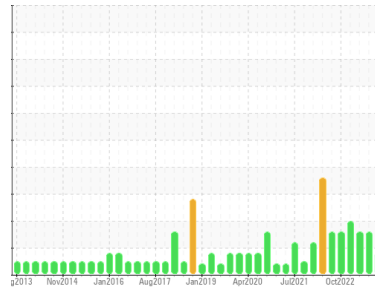




PROBLEM SUMMARY

Sample Rating Trend



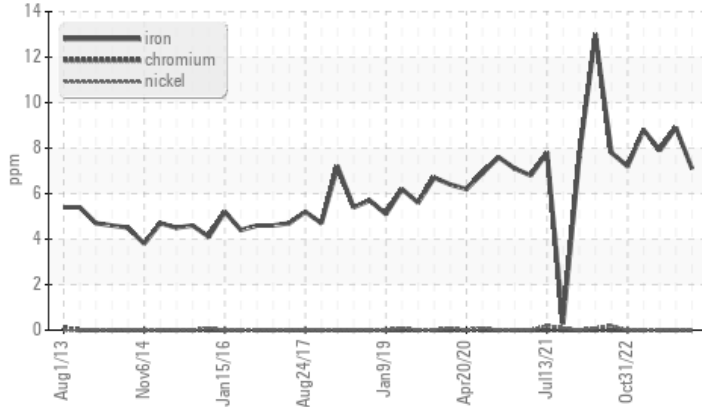
WEAR



Area
SAB2
 Machine Id
SAB2 G23
 Component
Turbine Bearing
 Fluid
ESSO TERESSO ISO 46 (273 LTR)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185(m)	>7	▲ 7	▲ 9	▲ 8

Customer Id: ONTQUE
 Sample No.: WC0858100
 Lab Number: 02592112
 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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

31 Jul 2023 Diag: Kevin Marson

WEAR



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal. 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. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



05 Jun 2023 Diag: Kevin Marson

WEAR



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal. 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. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



26 Jan 2023 Diag: Bill Quesnel

WEAR



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. We suspect that there is a high level of varnish present in the oil. As a result we recommend that you contact us at 1-800-268-2131 and provide a purchase order for \$95 + HST in order to conduct MPC testing to determine the varnish levels of the oil (https://youtu.be/AuXFoc2ks_I). Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal. Particles >4µm and oil cleanliness are abnormally high. Particles >6µm are notably high. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

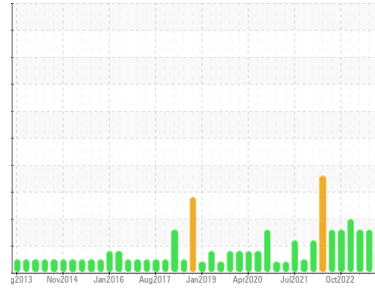
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Area
SAB2
 Machine Id
SAB2 G23
 Component
Turbine Bearing
 Fluid
ESSO TERESSO ISO 46 (273 LTR)

DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor.

Wear
 Iron ppm levels are noted. 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		WC0858100	WC0830400	WC0780474
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			ATTENTION	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >7	▲ 7	▲ 9	▲ 8
Chromium	ppm	ASTM D5185(m) >2	0	0	0
Nickel	ppm	ASTM D5185(m) >2	0	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	<1	0	0
Aluminum	ppm	ASTM D5185(m) >2	<1	0	<1
Lead	ppm	ASTM D5185(m) >33	<1	<1	0
Copper	ppm	ASTM D5185(m) >3	<1	<1	<1
Tin	ppm	ASTM D5185(m) >6	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
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	0	<1
Calcium	ppm	ASTM D5185(m) 0	<1	<1	0
Phosphorus	ppm	ASTM D5185(m) 2.4	1	1	<1
Zinc	ppm	ASTM D5185(m) 0	<1	2	1
Sulfur	ppm	ASTM D5185(m)	1657	1805	1669
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

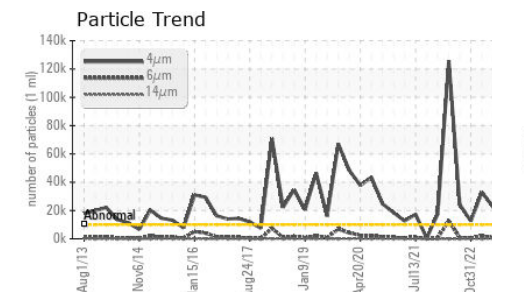
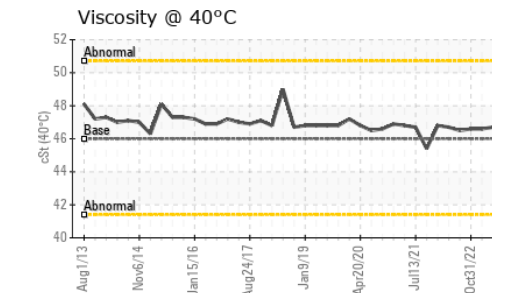
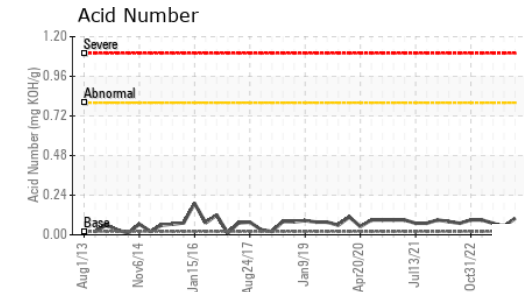
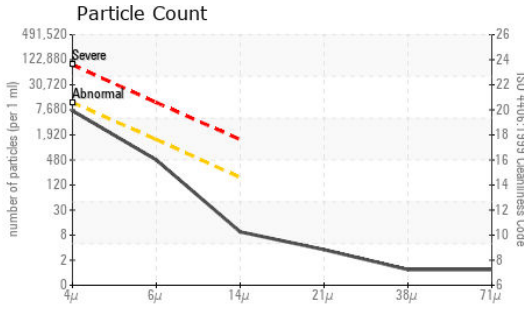
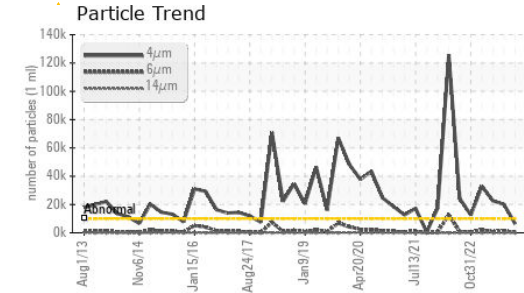
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	12	13	11
Sodium	ppm	ASTM D5185(m)	0	0	<1
Potassium	ppm	ASTM D5185(m) >20	0	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	6402	▲ 20083	▲ 22585
Particles >6µm	ASTM D7647	>1300	423	1171	797
Particles >14µm	ASTM D7647	>160	8	14	8
Particles >21µm	ASTM D7647	>40	3	2	3
Particles >38µm	ASTM D7647	>10	1	0	1
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>20/17/14	20/16/10	▲ 22/17/11	▲ 22/17/10

FLUID DEGRADATION

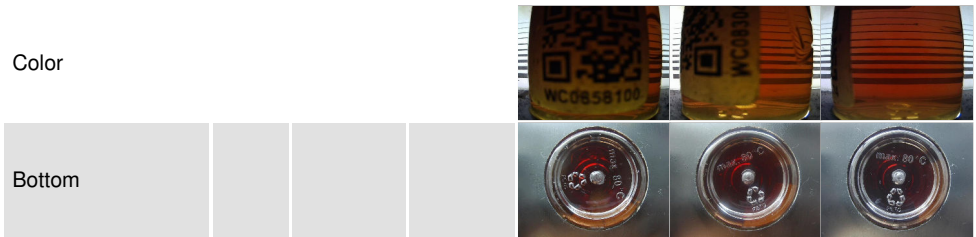
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.02	0.10	0.05	0.07



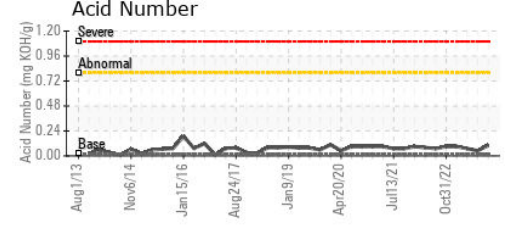
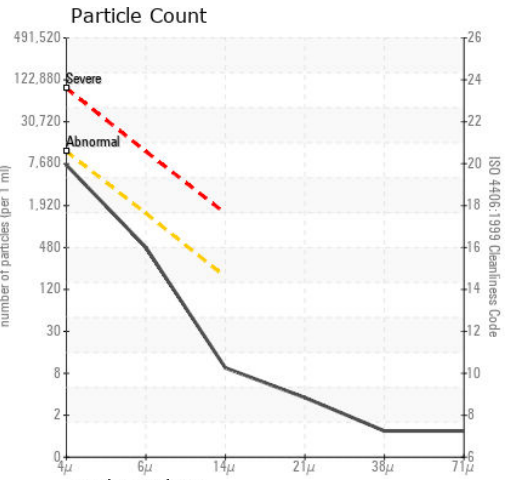
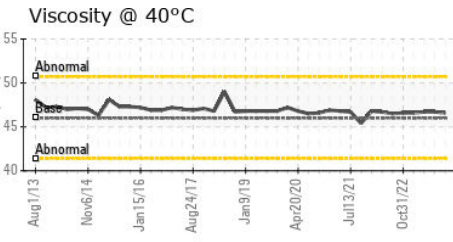
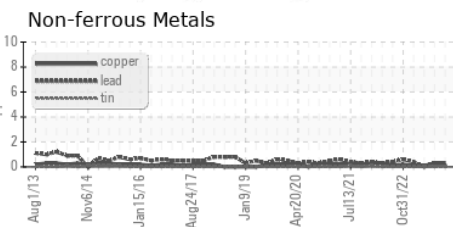
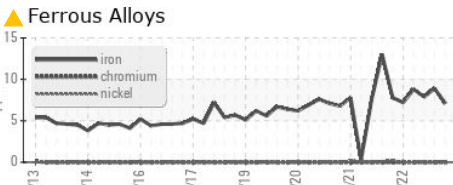
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	46.6	46.7

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. : WC0858100
Lab Number : 02592112
Unique Number : 5669191
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.