

OIL ANALYSIS REPORT

Area SAB2 SAB2 G25 Governor Lube

Component **Governor System** 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.





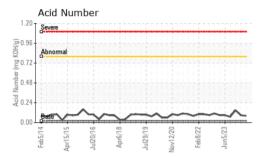
Sample Rating Trend

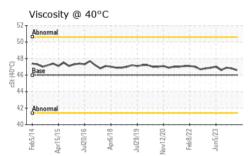
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0890873	WC0801624	WC0858105
Sample Date		Client Info		27 Mar 2024	07 Jan 2024	25 Oct 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	۷	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>3	0	<1	0
Lead	ppm	ASTM D5185(m)	>75	<1	1	1
Copper	ppm	ASTM D5185(m)	>15	0	<1	<1
Tin	ppm	ASTM D5185(m)	>55	0	0	0
Antimony	ppm	ASTM D5185(m)	>5	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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 0	history1 0	history2 <1
	ppm ppm					
Boron		ASTM D5185(m)		0	0	<1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0	0 0	0	<1 <1
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0	0 0 0	<1 <1 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	0 0 0 0	0 0 0 0	<1 <1 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	0 0 0 0 <1	0 0 0 0 0	<1 <1 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 2.4	0 0 0 <1 0	0 0 0 0 0 <1	<1 <1 0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 2.4	0 0 0 <1 0 2	0 0 0 0 <1 2	<1 <1 0 0 0 <1 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 2.4	0 0 0 <1 0 2 <1	0 0 0 0 <1 2 <1	<1 <1 0 0 0 <1 3 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 2.4	0 0 0 <1 0 2 <1 1206	0 0 0 0 <1 2 <1 1303	<1 <1 0 0 0 <1 3 <1 1224
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 2.4 0	0 0 0 <1 0 2 <1 1206 <1	0 0 0 0 <1 2 <1 1303 <1	<1 <1 0 0 0 <1 3 <1 1224 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 2.4 0	0 0 0 <1 0 2 <1 1206 <1 1206	0 0 0 0 <1 2 <1 1303 <1 history1	<1 <1 0 0 0 <1 3 <1 1224 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	0 0 0 0 2.4 0	0 0 0 <1 0 2 <1 1206 <1 2 0	0 0 0 0 <1 2 <1 1303 <1 history1 0	<1 <1 0 0 0 <1 3 <1 1224 <1 history2 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 2.4 0 limit/base	0 0 0 <1 0 2 <1 1206 <1 2 0 0	0 0 0 0 <1 2 <1 1303 <1 history1 0 0	<1 <1 0 0 0 <1 3 <1 1224 <1 history2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 2.4 0 limit/base >8	0 0 0 <1 0 2 <1 1206 <1 2 <1 1206 <1 0 0 0 4	0 0 0 0 2 1 2 <1 1303 <1 history1 0 0 0 1	<1 <1 0 0 0 <1 3 <1 1224 <1 history2 <1 0 0 0 0 <
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 2.4 0 imit/base >8 >20 imit/base	0 0 0 2 1 0 2 4 1 1206 4 1 2 0 0 4 1 0 0 1 1 0 0 0 4 1	0 0 0 0 0 1 2 <1 2 <1 1303 <1 history1 0 0 0 <1 history1	<1 <1 0 0 0 <1 3 <1 1224 <1 1224 <1 history2 <1 0 0 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 2.4 0 imit/base >8 >20 imit/base >200	0 0 0 2 1 0 2 3 1 1206 3 1 2 0 0 3 3 1 2 0 0 3 3 1 2 0 0 3 3 1 2 0 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	0 0 0 0 0 1 2 <1 2 <1 1303 <1 history1 0 0 0 <1 history1 339	<1 <1 0 0 0 <1 3 <1 1224 <1 1224 <1 history2 <1 0 0 0 history2 268
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 2.4 0 2.4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 2 41 0 2 41 1206 41 0 0 41 0 0 41 250 70	0 0 0 0 2 3 3 3 9 108	<1 <1 0 0 0 <1 3 <1 1224 <1 1224 <1 history2 <1 0 0 history2 268 73
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 2.4 0 2.4 0 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0 0 2 41 0 2 41 1206 41 0 0 41 0 0 41 250 70 8	0 0 0 0 0 1 2 1 2 3 3 3 9 1 0 0 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0	<1 <1 0 0 0 <1 1224 <1 history2 <1 0 0 history2 268 73 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 0 2.4 0 1 1 1 1 1 1 2.4 0 2 2 1 2 2 1 1 2 2 1 2 2 0 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0 0 2 4 1 0 2 4 1 1206 4 1 206 4 1 0 0 4 1 2 0 0 4 1 2 50 70 8 8 4	0 0 0 0 2 3 1 2 3 1 3 3 3 9 1 0 3 3 9 1 0 8 3 3 9 1 0 8 1 6 5 5	<1 <1 0 0 0 0 <1 3 <1 1224 <1 1224 <1 1224 <1 10 0 0 <1 10 0 0 0 10 0 10 0 10 0 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 0 2.4 0 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0 0 2 4 1 0 2 4 1 1206 4 1 206 4 1 0 0 4 1 2 0 0 4 1 2 50 70 8 8 4 1	0 0 0 0 2 3 1 2 3 1 3 3 3 3 3 3 9 1 0 8 3 3 9 1 0 8 3 3 9 1 0 8 3 3 9 1 0 8 1 6 5 0 0	<1 <1 0 0 0 <1 3 <1 1224 <1 1224 <1 1224 <1 1224 <1 0 0 0 0 10 10 0 0 10 10 0 0 10 10 10 1

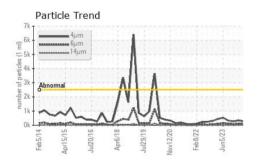


OIL ANALYSIS REPORT

6k -	4μm 6μm		-		11111	
5k - 4k - 3k - Abno 2k -	14μπ	n				
4k -			1			
3k Abno	rmal			1		
2k -				11111		
1k- A	\sim	A 1	AV	AL		







FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	0.08	0.09	0.15
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	46.6	46.8	46.9
SAMPLE IMAGES	6	method	limit/base	current	history1	history2

Color

Bottom

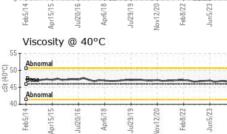
bpm

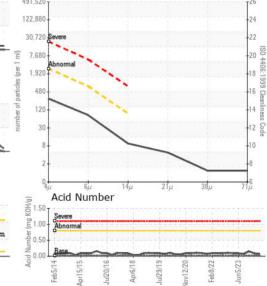
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Ferrous Alloys Particle Count 491,520 122,880 n ch 30,72 per 1,92 cles Non-ferrous Metals 480 120 ad 30





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Ontario Power Generation** CALA Sample No. : WC0890873 Received : 28 Mar 2024 NIAGARA PLANT GROUP,, 14000 NIAGARA PKWY Lab Number : 02625286 Tested NIAGARA ON THE LAKE, ON :01 Apr 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5750405 Diagnosed : 01 Apr 2024 - Kevin Marson CA LOS 1J0 Test Package : IND 2 (Additional Tests: TAN Man) Contact: Alex Courtemanche To discuss this sample report, contact Customer Service at 1-800-268-2131. alex.courtemanche@opg.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (905)357-0322

Validity of results and interpretation are based on the sample and information as supplied.

Report Id: ONTQUE [WCAMIS] 02625286 (Generated: 04/01/2024 09:26:19) Rev: 1

Submitted By: ?

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