

## **OIL ANALYSIS REPORT**

# SAB2 **SAB2 G26 Governor Lube**

**Governor System** 

ESSO TERESSO ISO 46 (6160 LTR)

# ............

Sample Rating Trend



### 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 INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0890877	WC0801628	WC0858109
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	٧	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	<1
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	<1	<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
7.5525		memou	mine bacc	Current	History	HISTOLYZ
Boron	ppm	ASTM D5185(m)	0	0	0	<1
	ppm					
Boron		ASTM D5185(m)	0	0	0	<1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	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	<1 <1 0
Boron Barium Molybdenum Manganese Magnesium	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 0 0	<1 <1 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium	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 0 0	0 0 0 0 0 0 <1	<1 <1 0 0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 2.4	0 0 0 0 0 0	0 0 0 0 0 0 <1 2	<1 <1 0 0 0 0 0 <1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 2.4	0 0 0 0 0 0 2 <1	0 0 0 0 0 0 <1 2 <1	<1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 2.4	0 0 0 0 0 0 2 <1 1198	0 0 0 0 0 <1 2 <1 1284	<1 <1 0 0 0 0 <1 2 <1 1216
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 2.4	0 0 0 0 0 0 2 <1 1198	0 0 0 0 0 <1 2 <1 1284	<1 <1 0 0 0 <1 2 <1 1216 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 2.4 0	0 0 0 0 0 0 2 <1 1198 <1	0 0 0 0 0 <1 2 <1 1284 <1	<1 <1 0 0 0 <1 2 <1 1216 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  method ASTM D5185(m)	0 0 0 0 2.4 0	0 0 0 0 0 0 0 2 <1 1198 <1	0 0 0 0 0 0 <1 2 <1 1284 <1 history1	<1 0 0 0 0 <1 2 <1 1216 <1 history2 0
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)	0 0 0 0 2.4 0	0 0 0 0 0 0 0 2 <1 1198 <1 current 0 0	0 0 0 0 0 <1 2 <1 1284 <1 history1	<1 <1 0 0 0 0 <1 2 <1 1216 <1 history2 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 2.4 0 limit/base >8 >20	0 0 0 0 0 0 2 <1 1198 <1 current 0 0 <1	0 0 0 0 0 0 <1 2 <1 1284 <1 history1	<1
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)  METHOD  ASTM D5185(m)	0 0 0 0 2.4 0	0 0 0 0 0 0 2 <1 1198 <1 current 0 0 <1 current	0 0 0 0 0 0 <1 2 <1 1284 <1 history1 0 <1 history1	<1
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)  METHOD  ASTM D5185(m)	0 0 0 0 2.4 0 limit/base >8 >20 limit/base >2500 >640	0 0 0 0 0 0 2 <1 1198 <1 current 0 0 <1 current	0 0 0 0 0 0 <1 2 <1 1284 <1 history1 0 0 <1 history1	<1 <1 0 0 0 0 <1 2 <1 1216 <1 history2 0 0 history2 353 97
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)  method ASTM D5185(m) ASTM D7647 ASTM D7647	0 0 0 0 2.4 0 limit/base >8 >20 limit/base >2500 >640 >80	0 0 0 0 0 0 2 <1 1198 <1 current 0 0 <1 current 263 78 7	0 0 0 0 0 0 <1 2 <1 1284 <1 history1 0 0 <1 history1 1978 378 12	<1 <1 0 0 0 0 <1 2 <1 1216 <1 history2 0 0 history2 353 97 3
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)  MASTM D5185(m)  MASTM D5185(m)  MASTM 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 D7647 ASTM D7647 ASTM D7647	0 0 0 0 2.4 0 limit/base >8 >20 limit/base >2500 >640	0 0 0 0 0 0 2 <1 11198 <1 current 0 0 <1 current 263 78 7	0 0 0 0 0 0 <1 2 <1 1284 <1 history1 0 0 <1 history1	<1 <1 0 0 0 0 <1 2 <1 1216 <1 history2 0 0 history2 353 97
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)  method ASTM D5185(m) ASTM D7647 ASTM D7647	0 0 0 2.4 0 limit/base >8 >20 limit/base >2500 >640 >20	0 0 0 0 0 0 2 <1 1198 <1 current 0 0 <1 current 263 78 7	0 0 0 0 0 0 <1 2 <1 1284 <1 history1 0 0 <1 history1 1978 378 12 3	<1 <1 0 0 0 0 <1 2 <1 1216 <1 history2 0 0 history2 353 97 3 1

ISO 4406 (c) >18/16/13

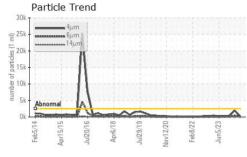
15/13/10

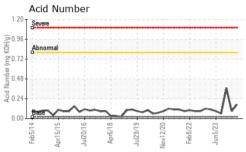
18/16/11

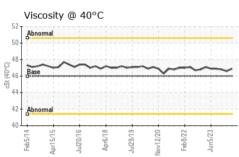
Oil Cleanliness

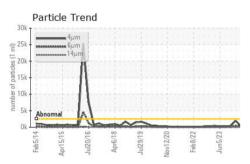


### **OIL ANALYSIS REPORT**

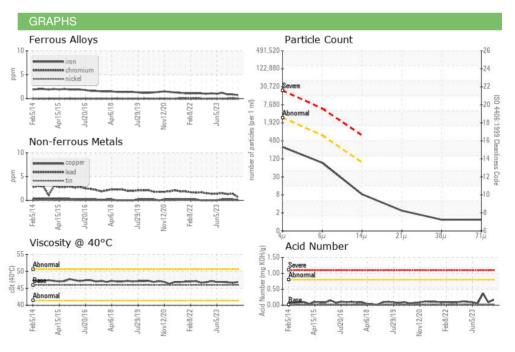








FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	0.17	0.09	0.37
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	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
<b>Emulsified Water</b>	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	46.9	46.6	46.8
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
Color						W 100







Laboratory Sample No.

: WC0890877 Lab Number : 02625279 Unique Number : 5750398

**Bottom** 

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

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

Received : 28 Mar 2024 **Tested** Diagnosed

: 01 Apr 2024

NIAGARA PLANT GROUP,, 14000 NIAGARA PKWY : 01 Apr 2024 - Kevin Marson

NIAGARA ON THE LAKE, ON CA LOS 1J0 Contact: Alex Courtemanche

alex.courtemanche@opg.com T: (905)357-0322

**Ontario Power Generation** 

Test Package : IND 2 (Additional Tests: TAN Man) 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.

F: (905)357-6558