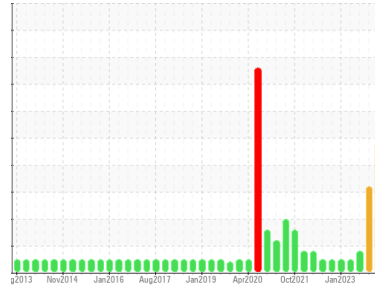




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area  
**SAB2**  
 Machine Id  
**SAB2 G21 Governor**  
 Component  
**Hydraulic System**  
 Fluid  
**ESSO TERESSO ISO 46 (6160 LTR)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We advise that you follow the water drain-off procedure for 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 particulates (2 to 100 microns in size) present in the oil. Free water present. 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		<b>WC0801598</b>	WC0858091	WC0830391
Sample Date	Client Info		<b>07 Jan 2024</b>	25 Oct 2023	31 Jul 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ATTENTION

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	<b>NEG</b>	NEG	NEG

## WEAR METALS

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

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Phosphorus	ppm	ASTM D5185(m) 2.4	<b>2</b>	1	2
Zinc	ppm	ASTM D5185(m) 0	<b>3</b>	1	3
Sulfur	ppm	ASTM D5185(m)	<b>1580</b>	1493	1636
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

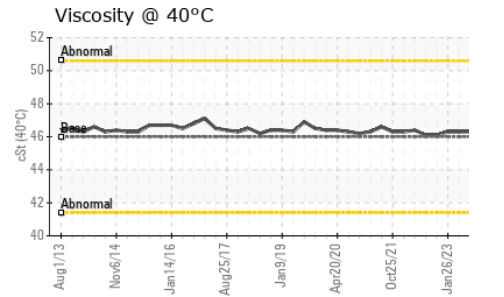
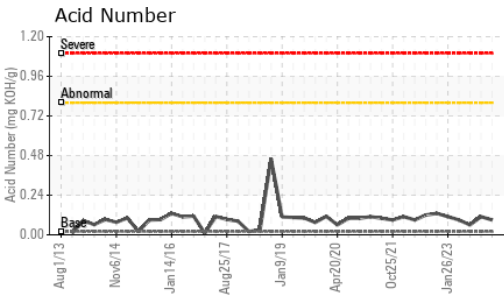
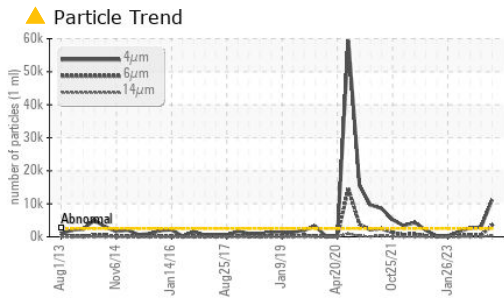
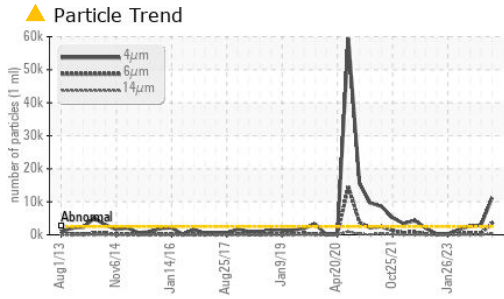
## CONTAMINANTS

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

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>▲ 11204</b>	▲ 2917	▲ 2659
Particles >6µm	ASTM D7647	>640	<b>▲ 3488</b>	420	520
Particles >14µm	ASTM D7647	>80	<b>▲ 332</b>	15	48
Particles >21µm	ASTM D7647	>20	<b>▲ 119</b>	4	14
Particles >38µm	ASTM D7647	>4	<b>▲ 15</b>	1	1
Particles >71µm	ASTM D7647	>3	<b>1</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>▲ 21/19/16</b>	▲ 19/16/11	▲ 19/16/13

# OIL ANALYSIS REPORT

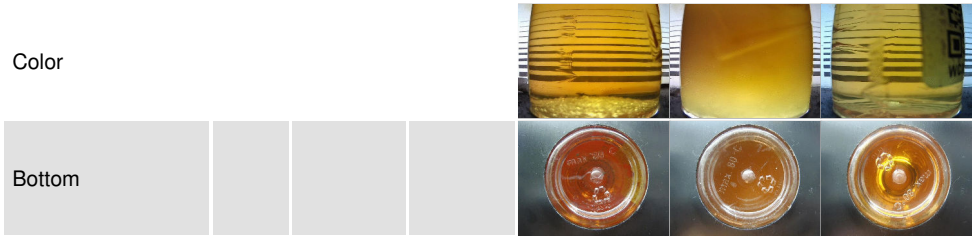


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.09</b>	0.11	0.06

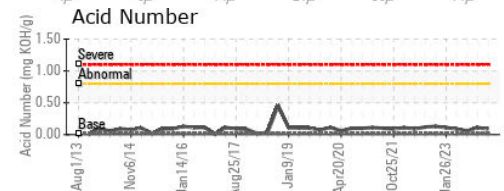
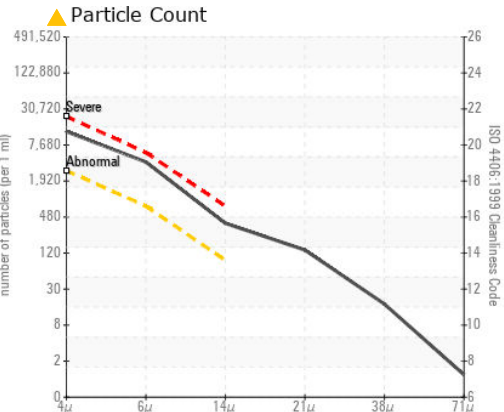
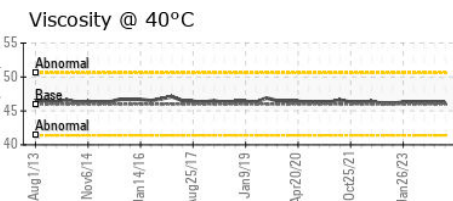
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>WGOIL</b>	LAYRD	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>.2%</b>	.2%	NEG
Free Water	scalar	Visual*		<b>1%</b>	5%	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>46.2</b>	46.2	46.3

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.** : WC0801598 **Received** : 08 Jan 2024  
**Lab Number** : **02607051** **Diagnosed** : 09 Jan 2024  
**Unique Number** : 5708137 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**Ontario Power Generation**  
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