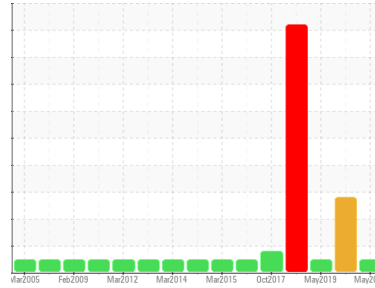




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**EAR FALLS GS**  
 Machine Id  
**FP1G1**  
 Component  
**Thrust Bearing**  
 Fluid  
**R&O OIL ISO 46 (--- GAL)**

## DIAGNOSIS

### Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) R&O OIL ISO 46. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

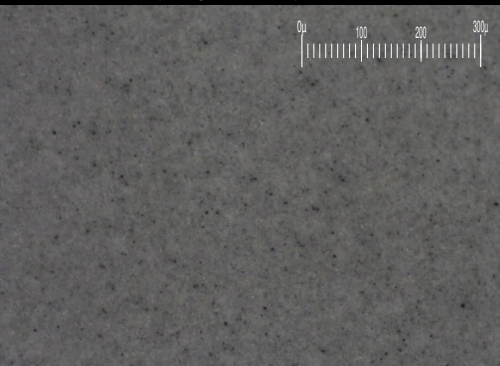
### Contamination

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.

Particle Filter (Magn: 100 x)



## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0560615</b>	WC0481694	WC0335047
Sample Date	Client Info	<b>03 May 2021</b>	07 Jul 2020	08 May 2019
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	ATTENTION	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >2	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >85	<b>&lt;1</b>	<1	<1
Chromium	ppm ASTM D5185(m)	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m)	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185(m) >40	<b>0</b>	0	0
Lead	ppm ASTM D5185(m) >60	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185(m) >7	<b>2</b>	2	<1
Tin	ppm ASTM D5185(m) >40	<b>&lt;1</b>	<1	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	<1	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) 5	<b>&lt;1</b>	<1	0
Barium	ppm ASTM D5185(m) 5	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 5	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 5	<b>&lt;1</b>	<1	<1
Calcium	ppm ASTM D5185(m) 5	<b>&lt;1</b>	<1	2
Phosphorus	ppm ASTM D5185(m) 100	<b>2</b>	3	2
Zinc	ppm ASTM D5185(m) 25	<b>4</b>	4	3
Sulfur	ppm ASTM D5185(m) 1500	<b>681</b>	677	624
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	0

## CONTAMINANTS

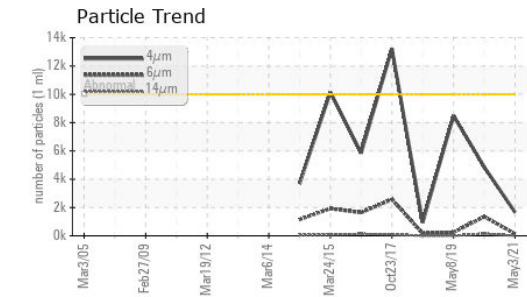
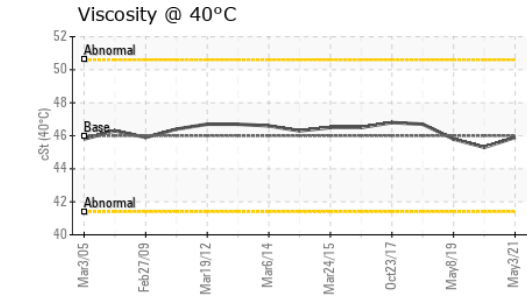
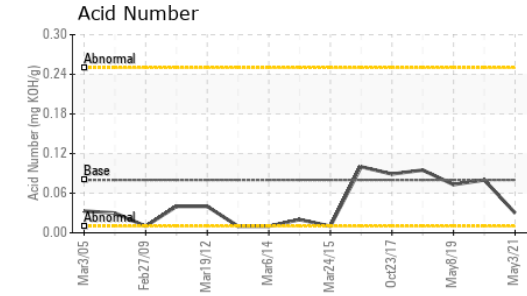
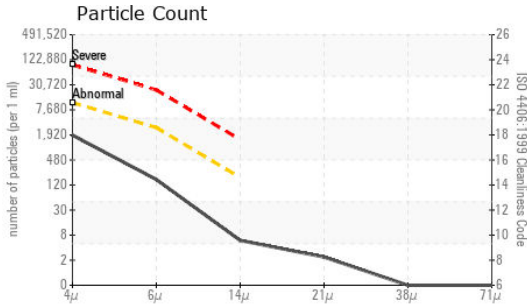
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<b>1</b>	1	<1
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	0
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>1661</b>	4855	8493
Particles >6µm	ASTM D7647 >2500	<b>144</b>	1354	251
Particles >14µm	ASTM D7647 >160	<b>5</b>	153	5
Particles >21µm	ASTM D7647 >40	<b>2</b>	▲ 62	0
Particles >38µm	ASTM D7647 >10	<b>0</b>	3	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/14	<b>18/14/10</b>	19/18/14	20/15/10



# OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.08	<b>0.03</b>	0.08	0.073

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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>45.9</b>	45.3	45.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color						
Bottom						
PrtFilter						
MPC				no image	no image	no image



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0560615 **Received** : 26 May 2021  
**Lab Number** : **02423559** **Diagnosed** : 27 May 2021  
**Unique Number** : 5227059 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FilterPatch, PrtCount )

**Ontario Power Generation**  
 KENORA PRODUCTION CENTRE, 200-60 FOURTEENTH ST. N.  
 KENORA, ON  
 CA P9N 4M9  
 Contact: Josh Robinson  
 josh.robinson@opg.com

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.