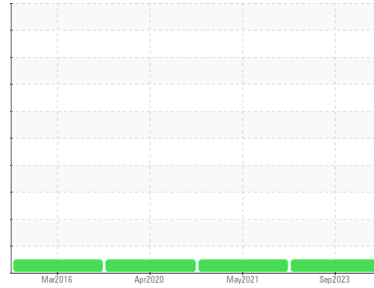




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**BFP - UNIT 4 THRUST BEARING (S/N 375340)**

Component  
**Thrust Bearing**

Fluid  
**SHELL TURBO T ISO 46 (30 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0827906</b>	WC0509220	WC0455075
Sample Date	Client Info			<b>28 Sep 2023</b>	10 May 2021	29 Apr 2020
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>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	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>4</b>	3	2
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>40	<b>0</b>	0	<1
Lead	ppm	ASTM D5185(m)	>60	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>7	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>40	<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)	4.0	<b>&lt;1</b>	<1	0
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m)	0	<b>2</b>	2	<1
Phosphorus	ppm	ASTM D5185(m)	2.1	<b>4</b>	6	0
Zinc	ppm	ASTM D5185(m)	2.0	<b>15</b>	13	6
Sulfur	ppm	ASTM D5185(m)	1300	<b>42</b>	35	52
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Sodium	ppm	ASTM D5185(m)		<b>2</b>	<1	0
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0

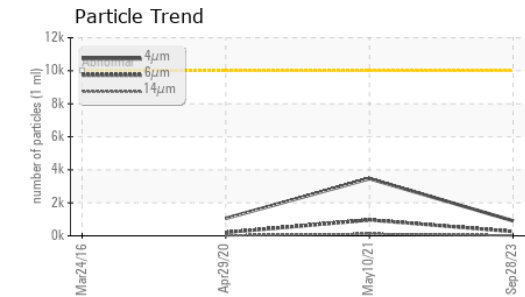
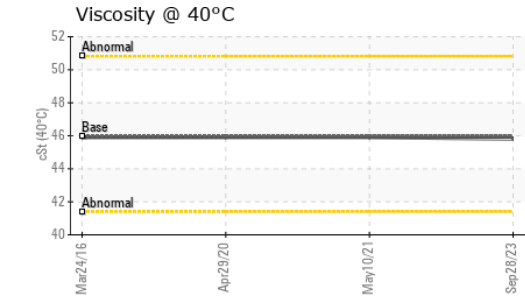
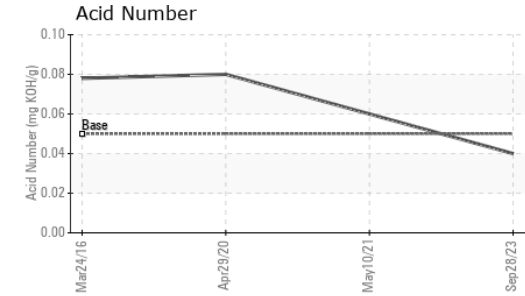
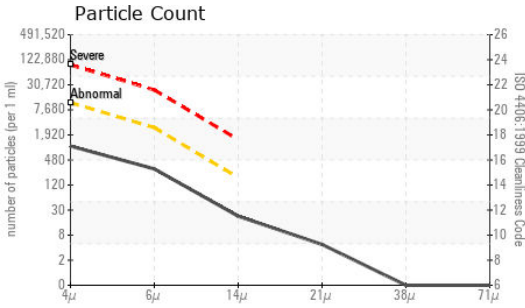
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>908</b>	3466	1057	
Particles >6µm	ASTM D7647	>2500	<b>258</b>	962	205	
Particles >14µm	ASTM D7647	>160	<b>19</b>	117	22	
Particles >21µm	ASTM D7647	>40	<b>4</b>	42	8	
Particles >38µm	ASTM D7647	>10	<b>0</b>	4	0	
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0	
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>17/15/11</b>	19/17/14	17/15/12	

Particle Filter (Magn: 100 x)





# OIL ANALYSIS REPORT

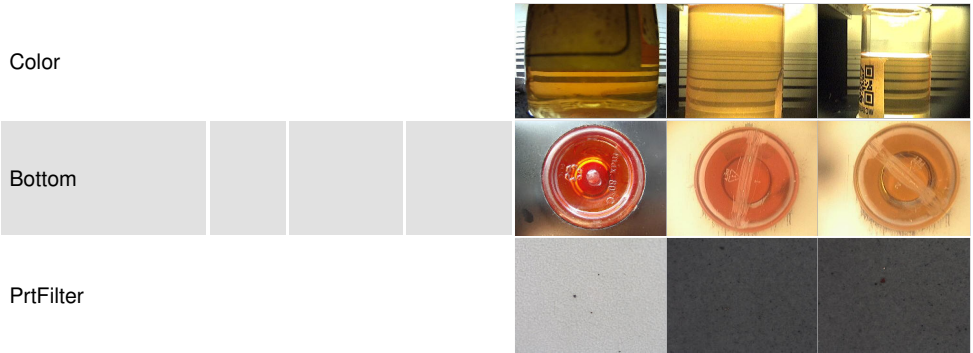


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	<b>0.04</b>	0.06	0.08

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
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>	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>45.8</b>	45.9	45.9

SAMPLE IMAGES		method	limit/base	current	history1	history2
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**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Nalcor Energy - Grand Falls-Windsor**  
**Sample No.** : WC0827906 **Received** : 14 Dec 2023 25 Hardy Avenue  
**Lab Number** : **02603222** **Diagnosed** : 18 Dec 2023 Grand Falls-Windsor, NL  
**Unique Number** : 5696307 **Diagnostician** : Kevin Marson CA A2A 2P8  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FilterPatch, PrtCount, PrtFilter, TAN Man ) Contact: Phillip Winsor  
philipwinsor@nlh.nl.ca  
T: (709)486-8714  
F:

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.