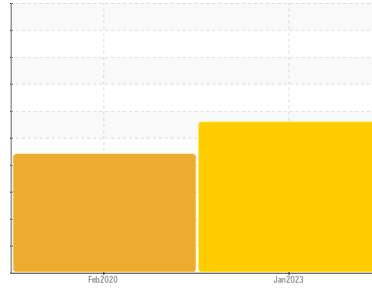




# PROBLEM SUMMARY

## Sample Rating Trend



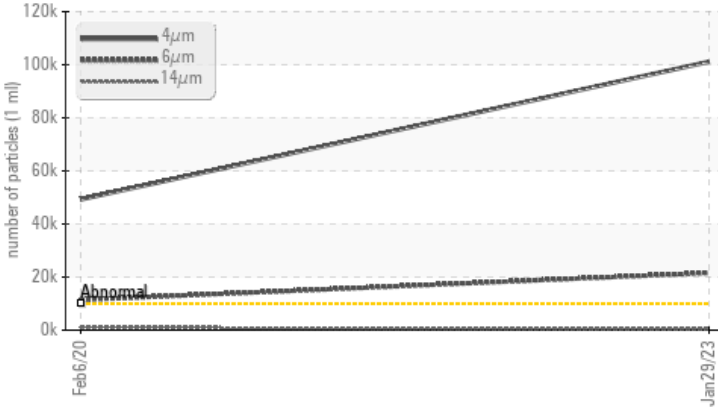
ISO



Machine Id  
**GFP3 - UNIT 5 THRUST BEARING (S/N 720176)**  
 Component  
**Main Thrust Bearing**  
 Fluid  
**R&O OIL ISO 100 (100 LTR)**

## COMPONENT CONDITION SUMMARY

### Particle Trend



## RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. 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. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. ( Customer Sample Comment: Nov 12 2021 )

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	---
Particles >4µm	ASTM D7647	>10000		🔴 101133	🟡 49265	---
Particles >6µm	ASTM D7647	>2500		🔴 21540	🟡 11404	---
Particles >14µm	ASTM D7647	>160		🟡 468	🟡 970	---
Particles >21µm	ASTM D7647	>40		🟡 113	🟡 316	---
Oil Cleanliness	ISO 4406 (c)	>20/18/14		🔴 24/22/16	🟡 23/21/17	---
White Metal	scalar	Visual*	NONE	🟡 VLITE	🟡 VLITE	---
PrtFilter						no image

Customer Id: NALGRA  
 Sample No.: WC0630832  
 Lab Number: 02536505  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.
Check Breathers	---	---	?	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.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.

## HISTORICAL DIAGNOSIS

### WATER



#### 06 Feb 2020 Diag: Kevin Marson

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 perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) R&O OIL ISO 100. Please confirm. Light concentration of visible metal present. All suspended wear metals are normal. Particles >14µm are abnormally high. Particles >21µm are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Free water present. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report





# OIL ANALYSIS REPORT

Sample Rating Trend

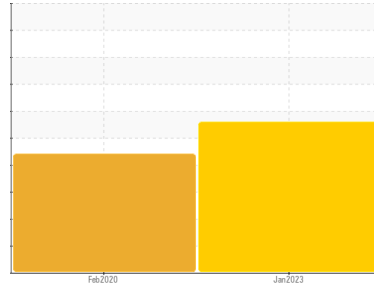
ISO



Machine Id  
**GFP3 - UNIT 5 THRUST BEARING (S/N 720176)**

Component  
**Main Thrust Bearing**

Fluid  
**R&O OIL ISO 100 (100 LTR)**



## DIAGNOSIS

### Recommendation

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. 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. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. ( Customer Sample Comment: Nov 12 2021 )

### Wear

Light concentration of visible metal present.

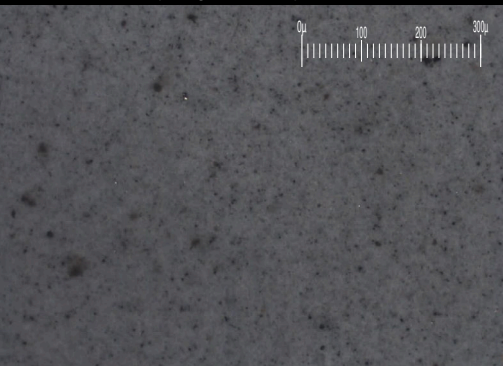
### Contamination

Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Particles >14µm are abnormally high. Particles >21µm are abnormally high.

### 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.

Particle Filter (Magn: 100 x)



## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0630832</b>	WC0455064	---
Sample Date	Client Info		<b>29 Jan 2023</b>	06 Feb 2020	---
Machine Age	hrs	Client Info	<b>0</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	N/A	---
Sample Status			<b>SEVERE</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>85	<b>13</b>	4	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>40	<b>0</b>	0	---
Lead	ppm	ASTM D5185(m)	>60	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185(m)	>7	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185(m)	>40	<b>6</b>	2	---
Antimony	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	0	---
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185(m)	5	<b>0</b>	<1	---
Calcium	ppm	ASTM D5185(m)	5	<b>0</b>	0	---
Phosphorus	ppm	ASTM D5185(m)	100	<b>0</b>	<1	---
Zinc	ppm	ASTM D5185(m)	25	<b>1</b>	1	---
Sulfur	ppm	ASTM D5185(m)	1500	<b>230</b>	800	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

## CONTAMINANTS

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

## FLUID CLEANLINESS

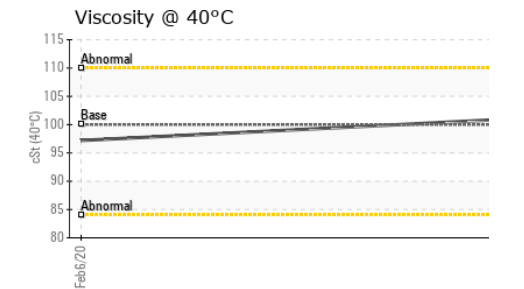
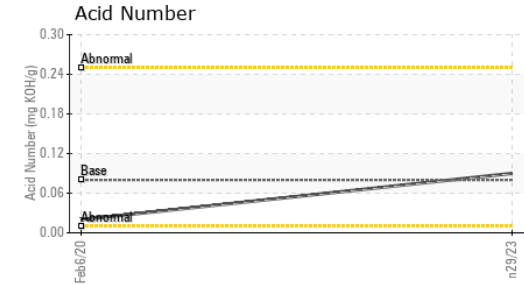
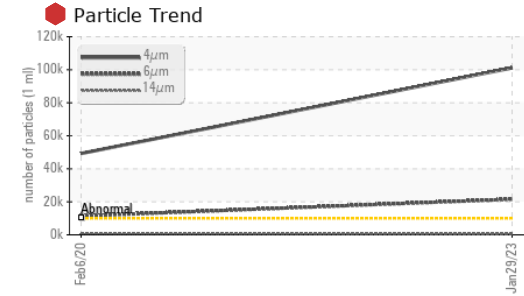
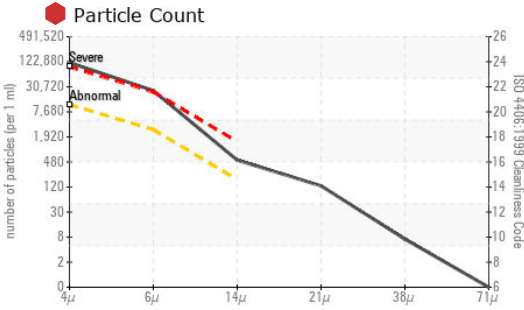
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>101133</b>	49265	---
Particles >6µm	ASTM D7647	>2500	<b>21540</b>	11404	---
Particles >14µm	ASTM D7647	>160	<b>468</b>	970	---
Particles >21µm	ASTM D7647	>40	<b>113</b>	316	---
Particles >38µm	ASTM D7647	>10	<b>6</b>	10	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>24/22/16</b>	23/21/17	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.08	<b>0.09</b>	0.02	---



# OIL ANALYSIS REPORT



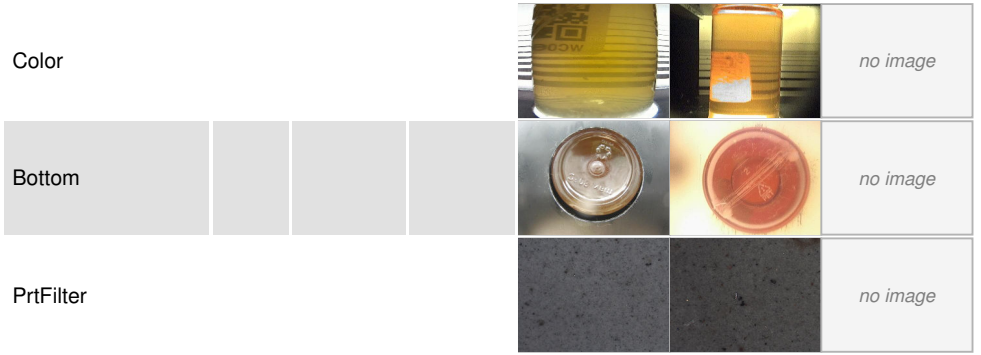
**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Nalcor Energy - Grand Falls-Windsor**  
**Sample No.** : WC0630832 **Received** : 30 Jan 2023 25 Hardy Avenue  
**Lab Number** : 02536505 **Diagnosed** : 01 Feb 2023 Grand Falls-Windsor, NL  
**Unique Number** : 5525505 **Diagnostician** : Kevin Marson CA A2A 2P8  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FilterPatch, PrtCount, 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.*

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	100	101	97.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS

