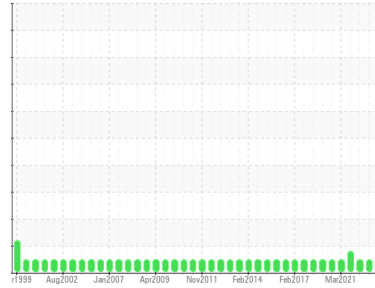




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**BDE - UNIT 2 GOVERNOR (S/N 58921)**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA TURBOFLO R&O 46 (1640 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>WC0863084</b>	WC0762282	WC0524842
Sample Date	Client Info			<b>18 Mar 2024</b>	08 Nov 2023	14 Mar 2022
Machine Age	hrs	Client Info		<b>74099</b>	74099	0
Oil Age	hrs	Client Info		<b>74099</b>	74099	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

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>0</b>	0	0
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>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>3</b>	4	4
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	<1
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)		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Phosphorus	ppm	ASTM D5185(m)	3	<b>7</b>	7	7
Zinc	ppm	ASTM D5185(m)	0	<b>2</b>	2	2
Sulfur	ppm	ASTM D5185(m)		<b>1035</b>	1029	1023
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0

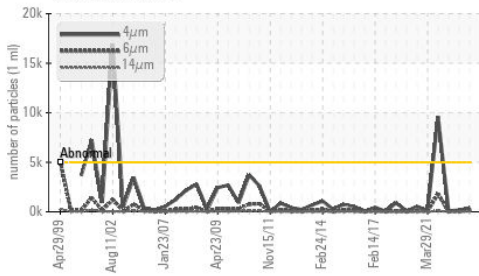
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>396</b>	172	96
Particles >6µm		ASTM D7647	>1300	<b>157</b>	66	15
Particles >14µm		ASTM D7647	>160	<b>25</b>	6	0
Particles >21µm		ASTM D7647	>40	<b>6</b>	2	0
Particles >38µm		ASTM D7647	>10	<b>2</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/14/12</b>	15/13/10	14/11/7

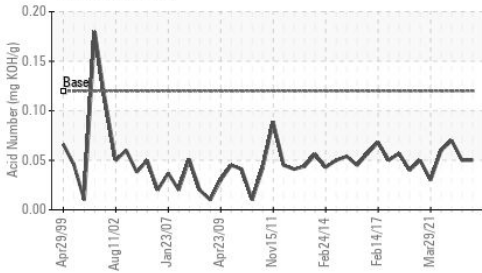


# OIL ANALYSIS REPORT

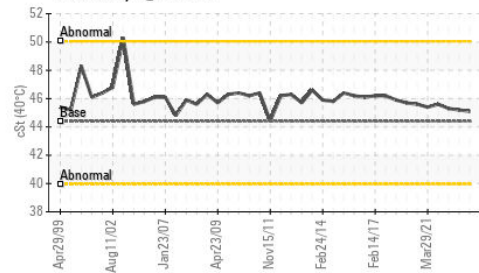
Particle Trend



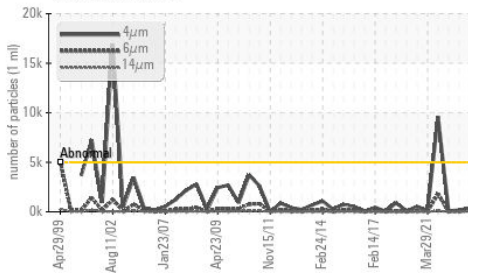
Acid Number



Viscosity @ 40°C



Particle Trend



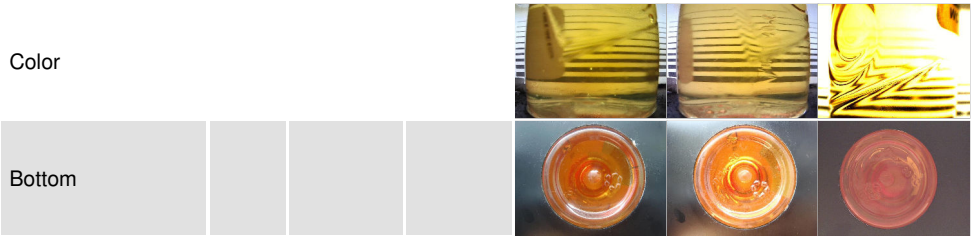
**FLUID DEGRADATION**    method    limit/base    current    history1    history2

Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	<b>0.05</b>	0.05	0.07
<b>VISUAL</b>						
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>	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*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

**FLUID PROPERTIES**    method    limit/base    current    history1    history2

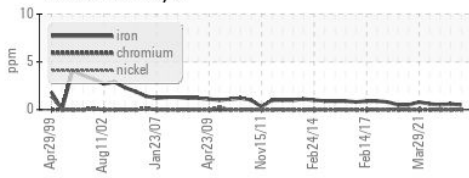
Visc @ 40°C	cSt	ASTM D7279(m)	44.4	<b>45.1</b>	45.2	45.3
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**SAMPLE IMAGES**    method    limit/base    current    history1    history2

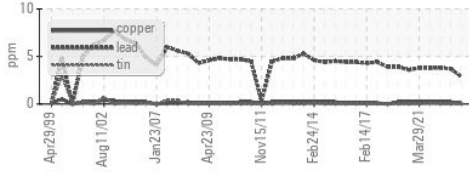


**GRAPHS**

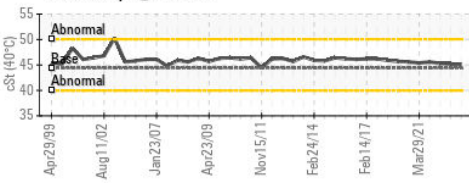
Ferrous Alloys



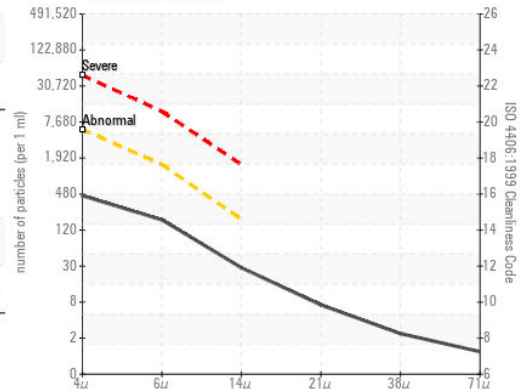
Non-ferrous Metals



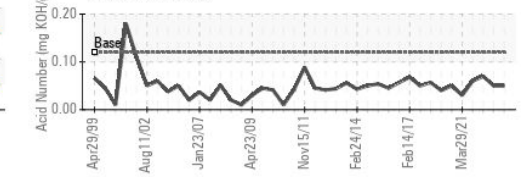
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0863084    **Received** : 28 Mar 2024  
**Lab Number** : **02625235**    **Tested** : 01 Apr 2024  
**Unique Number** : 5750354    **Diagnosed** : 01 Apr 2024 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**NEWFOUNDLAND & LABRADOR HYDRO**  
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 CA A0H 1W0  
 Contact: Matthew Lambert  
 matthewlambert@nlh.nl.ca  
 T: (709)882-3126  
 F: (709)882-3161

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.