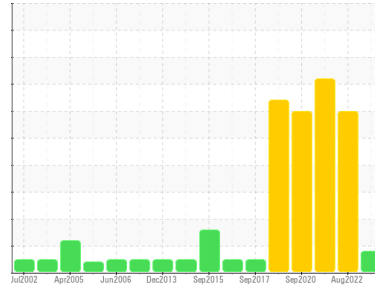




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id A3 - Generator (Upper) Guide Bearing

Component
Upper Bearing

Fluid
PETRO CANADA TURBOFLO R&O 46 (363 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Lead ppm levels are noted. All other 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			WC0792131	WC0312099	WC987340
Sample Date	Client Info			05 Sep 2023	05 Aug 2022	17 Oct 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ATTENTION	SEVERE	SEVERE

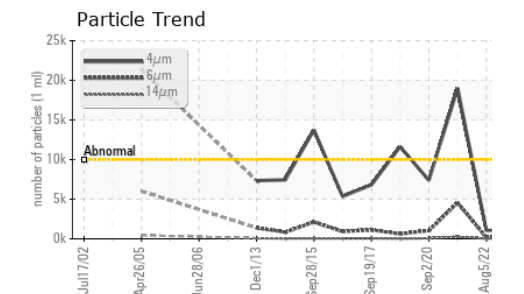
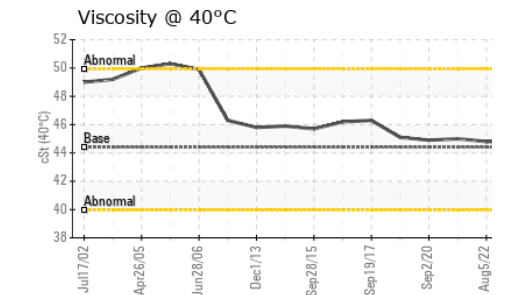
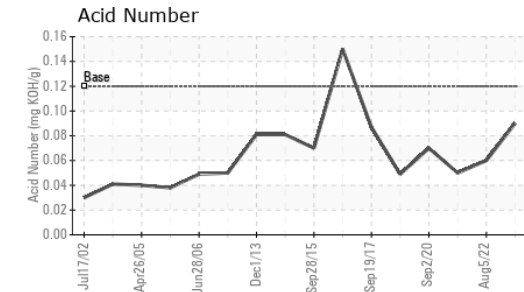
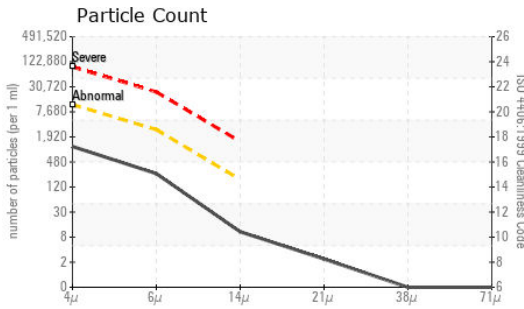
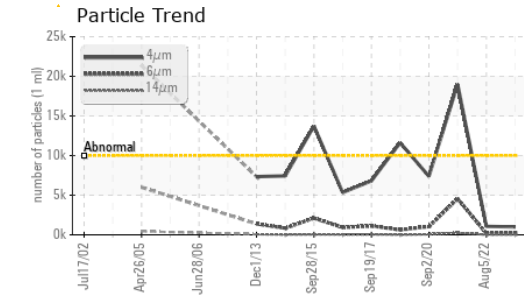
CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>2	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0	<1	0
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>20	▲ 20	76	87
Copper	ppm	ASTM D5185(m)	>20	<1	0	<1
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		0	0	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		<1	<1	0
Calcium	ppm	ASTM D5185(m)	0	2	<1	<1
Phosphorus	ppm	ASTM D5185(m)	3	6	7	6
Zinc	ppm	ASTM D5185(m)	0	2	1	1
Sulfur	ppm	ASTM D5185(m)		145	147	147
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<1	1	1
Sodium	ppm	ASTM D5185(m)		6	1	<1
Potassium	ppm	ASTM D5185(m)	>20	12	1	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	991	1064	▲ 18984
Particles >6µm		ASTM D7647	>2500	222	169	▲ 4558
Particles >14µm		ASTM D7647	>160	9	15	▲ 246
Particles >21µm		ASTM D7647	>40	2	4	38
Particles >38µm		ASTM D7647	>10	0	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	17/15/10	17/15/11	▲ 21/19/15



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	0.09	0.06	0.05

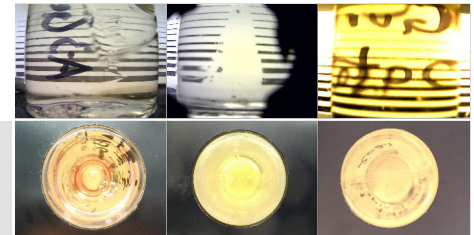
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	44.4	44.8	44.8	45.0

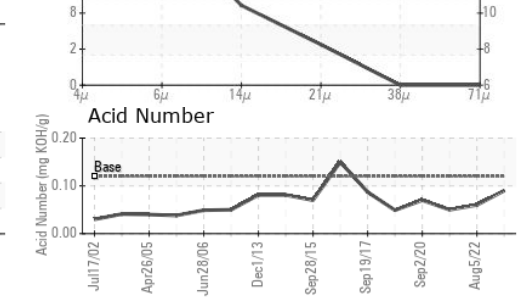
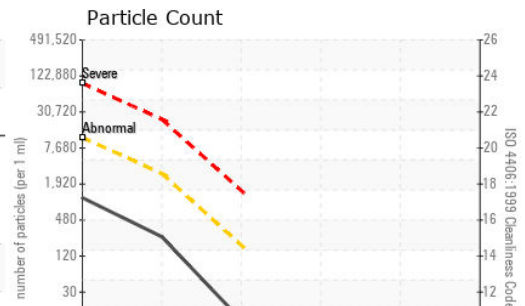
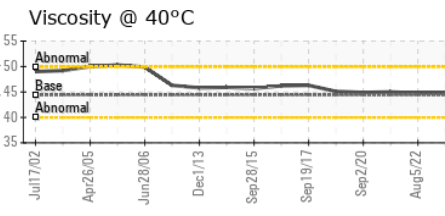
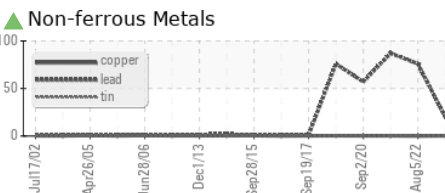
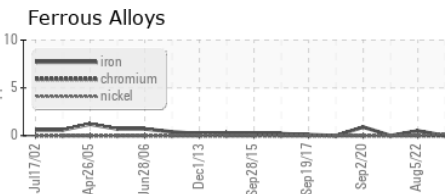
SAMPLE IMAGES		method	limit/base	current	history1	history2
---------------	--	--------	------------	---------	----------	----------

Color

Bottom



GRAPHS



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0792131 **Received** : 21 Dec 2023
Lab Number : **02604655** **Diagnosed** : 22 Dec 2023
Unique Number : 5697740 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

Nalcor Energy - Churchill Falls
 PO Box 310
 Churchill Falls, NL
 CA A0R 1A0
 Contact: Robert Noel
 robertnoel@nlh.nl.ca
 T: (709)925-8294
 F: (709)925-8220

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.