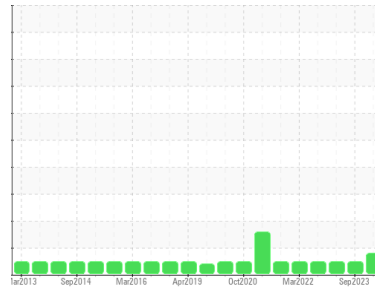




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
BRUCE A/1/71210 [8705209]
 Machine Id
1-71210-P3-PM Up Brg Level
 Component
Upper Bearing
 Fluid
PETRO CANADA TURBOFLO XL68 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

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	WC0871727	WC0815668	WC
Sample Date	Client Info	02 Apr 2024	15 Sep 2023	21 Mar 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >10	0	<1	<1
Chromium	ppm	ASTM D5185(m) >5	0	0	0
Nickel	ppm	ASTM D5185(m) >5	0	0	<1
Titanium	ppm	ASTM D5185(m) >5	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >5	0	<1	0
Lead	ppm	ASTM D5185(m) >5	0	0	<1
Copper	ppm	ASTM D5185(m) >5	<1	<1	0
Tin	ppm	ASTM D5185(m) >5	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	<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	<1	<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)	0	0	0
Calcium	ppm	ASTM D5185(m)	0	<1	0
Phosphorus	ppm	ASTM D5185(m)	2	<1	0
Zinc	ppm	ASTM D5185(m) 0	2	1	<1
Sulfur	ppm	ASTM D5185(m)	639	647	685
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

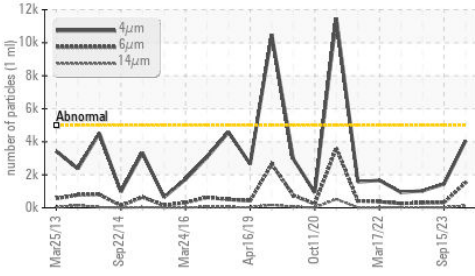
CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >5	0	0	0
Sodium	ppm	ASTM D5185(m) >5	<1	0	0
Potassium	ppm	ASTM D5185(m) >20	0	0	0
Water	%	ASTM D6304* >0.005	0.001	0.001	0.00
ppm Water	ppm	ASTM D6304* >50	1	7.1	0.00

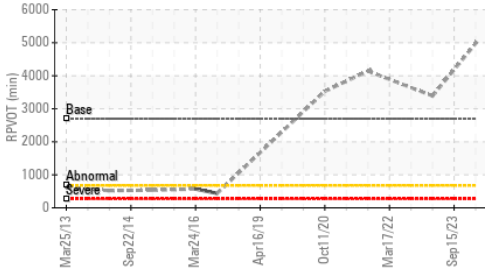
FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>5000	4058	1442	1031
Particles >6µm	ASTM D7647	>1300	1526	319	306
Particles >14µm	ASTM D7647	>320	131	19	30
Particles >21µm	ASTM D7647	>80	30	4	10
Particles >38µm	ASTM D7647	>20	2	0	0
Particles >71µm	ASTM D7647	>4	1	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/15	19/18/14	18/15/11	17/15/12

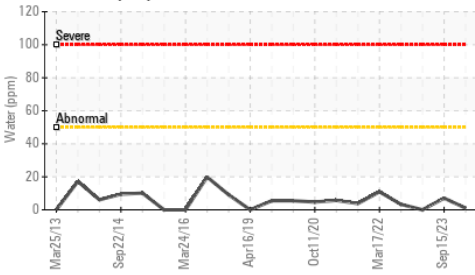
Particle Trend



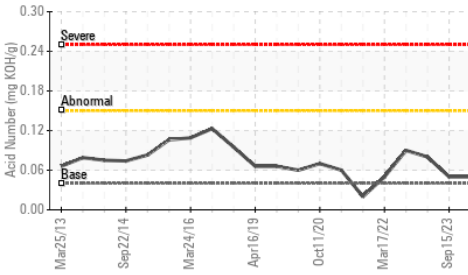
RPVOT



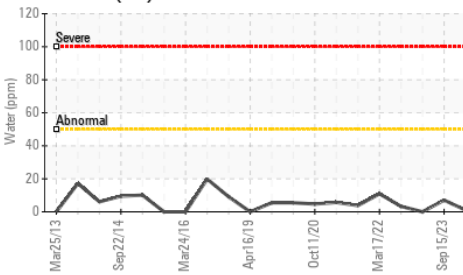
Water (KF)



Acid Number



Water (KF)

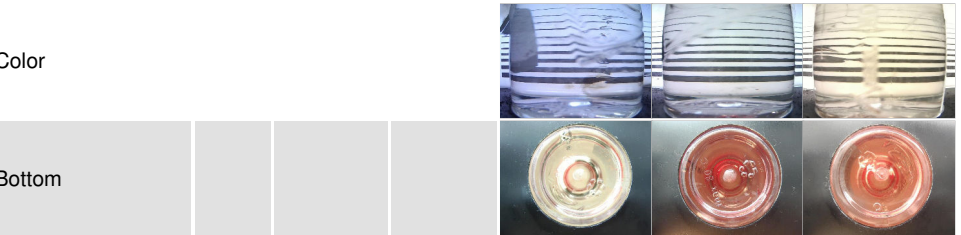


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	0.05	0.05	0.08

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	NONE
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*	>0.005	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

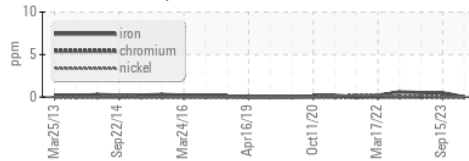
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68.17	67.6	67.6	67.6
Oxidation Test (RPVOT)	minutes	ASTM D2272*	2700	4974	---	3389

SAMPLE IMAGES

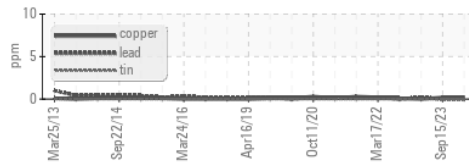


GRAPHS

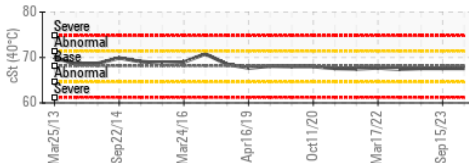
Ferrous Alloys



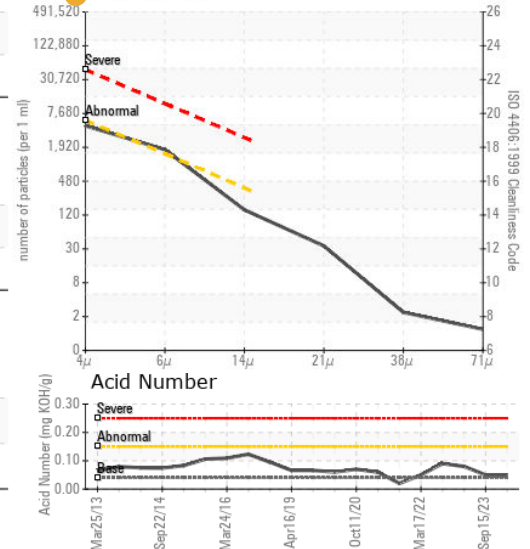
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0871727 **Received** : 17 Apr 2024
Lab Number : 02629637 **Tested** : 29 Apr 2024
Unique Number : 5762769 **Diagnosed** : 29 Apr 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: RPVOT, TAN Man)

Bruce Power - Bruce A PdM
 P.O.Box 1540, 177 Tie Road, RM-222 U2 Column 2N11 615'
 Tiverton, ON
 CA N0G 2T0
 Contact: Pierre Adouki
 pierre.adouki@brucepower.com
 T: (519)361-2673
 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.