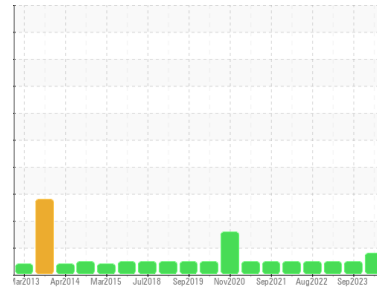




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
BRUCE A/1/71210 [8705209]
 Machine Id
1-71210-P1-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		WC0871725	WC0815669	WC0801446
Sample Date	Client Info		02 Apr 2024	15 Sep 2023	21 Mar 2023
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	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >10	0	0	0
Chromium	ppm	ASTM D5185(m) >5	0	0	0
Nickel	ppm	ASTM D5185(m) >5	0	0	0
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	<1
Lead	ppm	ASTM D5185(m) >5	0	<1	<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	0
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	0	0
Calcium	ppm	ASTM D5185(m)	<1	<1	0
Phosphorus	ppm	ASTM D5185(m)	3	<1	0
Zinc	ppm	ASTM D5185(m) 0	2	1	<1
Sulfur	ppm	ASTM D5185(m)	648	787	830
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	0	0	0
Potassium	ppm	ASTM D5185(m) >20	0	<1	0
Water	%	ASTM D6304* >0.005	0.001	0.00	0.00
ppm Water	ppm	ASTM D6304* >50	4	0.00	0.00

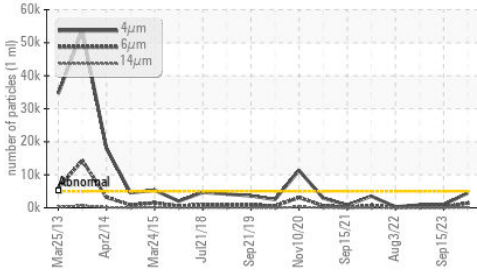
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	4469	920	844
Particles >6µm	ASTM D7647	>1300	1375	256	217
Particles >14µm	ASTM D7647	>320	92	22	15
Particles >21µm	ASTM D7647	>80	19	7	4
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	17/15/12	17/15/11

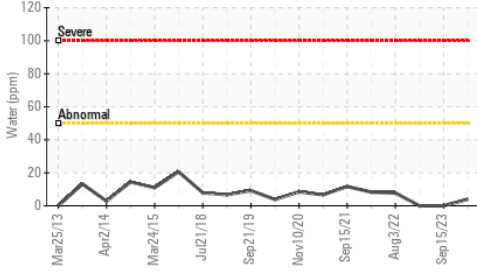


OIL ANALYSIS REPORT

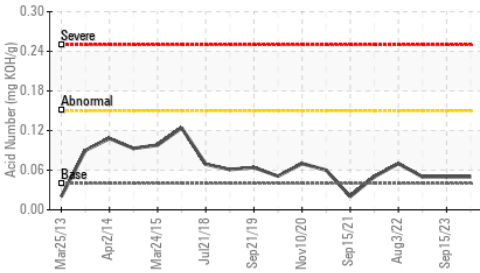
Particle Trend



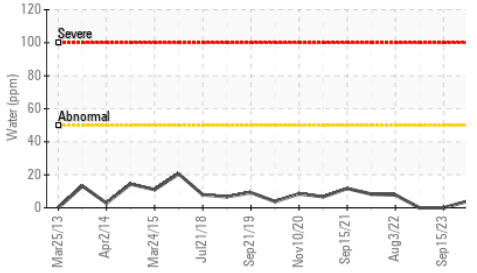
Water (KF)



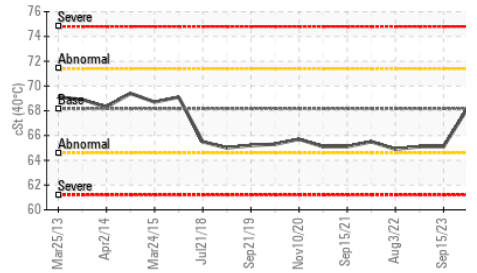
Acid Number



Water (KF)



Viscosity @ 40°C



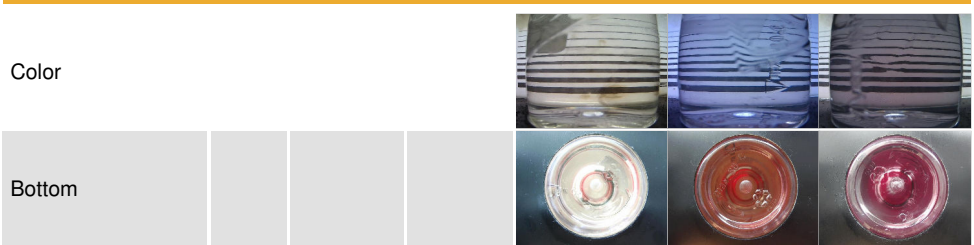
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D974*	0.04	0.05	0.05	0.05
VISUAL					
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.005	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES

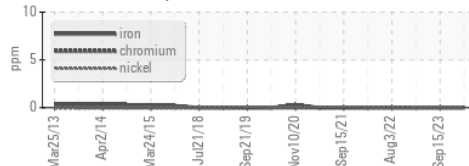
method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	68.17	68.2	65.1	65.1

SAMPLE IMAGES

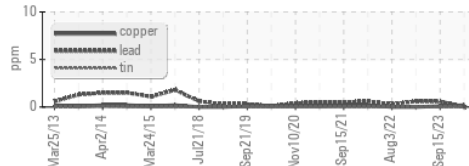


GRAPHS

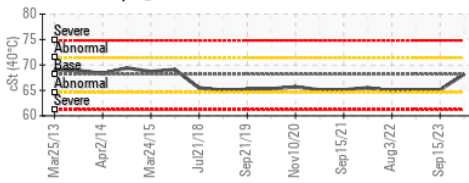
Ferrous Alloys



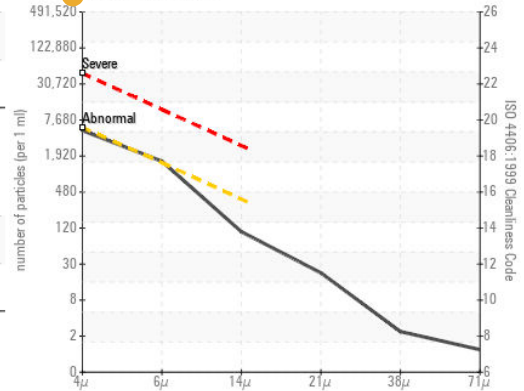
Non-ferrous Metals



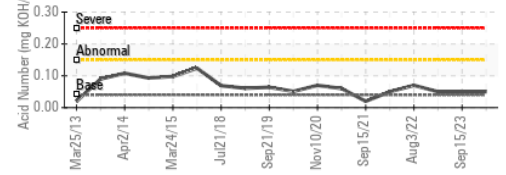
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0871725
Lab Number : 02629639
Unique Number : 5762771
Test Package : IND 2 (Additional Tests: 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:

Received : 17 Apr 2024
 Tested : 18 Apr 2024
 Diagnosed : 18 Apr 2024 - Wes Davis
 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.