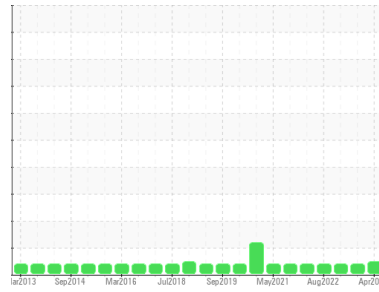




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
BRUCE A/1/71210 [8705209]
 Machine Id
1-71210-P3-PM Lo Brg Level
 Component
Lower Bearing
 Fluid
ESSO TERESSO ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

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

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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	WC0871723	WC0815674	WC0801453
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		NORMAL	ATTENTION	ATTENTION

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	<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	4	4
Copper ppm ASTM D5185(m)	>5	<1	0	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)	4.5	0	0	<1
Barium ppm ASTM D5185(m)	0.4	0	0	0
Molybdenum ppm ASTM D5185(m)	0	0	0	0
Manganese ppm ASTM D5185(m)		0	0	0
Magnesium ppm ASTM D5185(m)	0	0	0	0
Calcium ppm ASTM D5185(m)	0	<1	2	0
Phosphorus ppm ASTM D5185(m)	0.7	3	7	7
Zinc ppm ASTM D5185(m)	0	3	1	<1
Sulfur ppm ASTM D5185(m)	1315	648	1599	1699
Lithium ppm ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

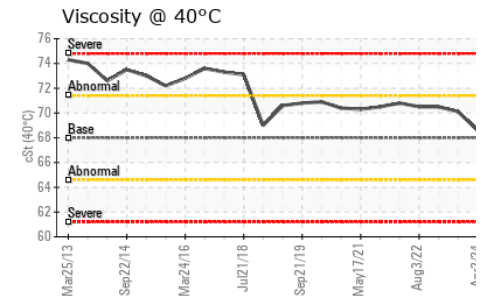
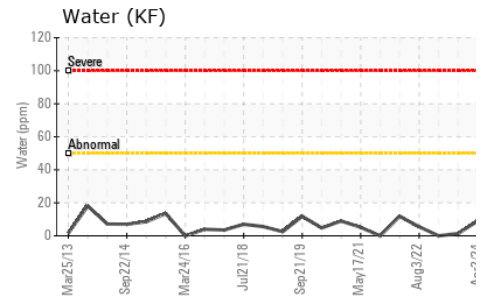
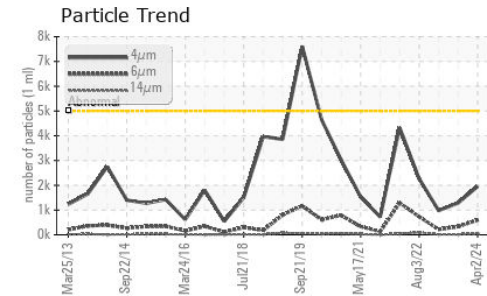
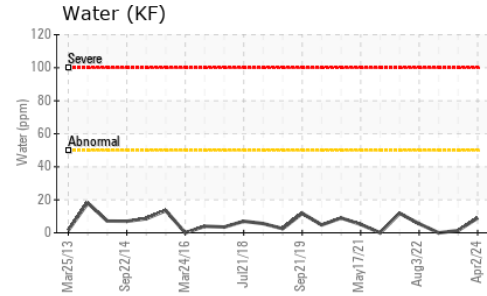
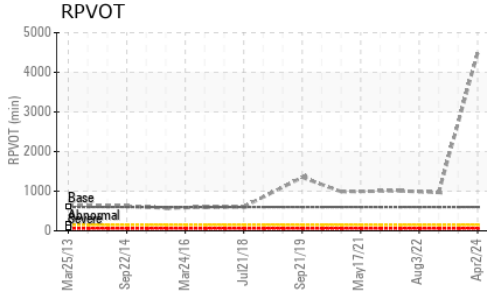
method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>5	0	0	0
Sodium ppm ASTM D5185(m)	>5	<1	0	<1
Potassium ppm ASTM D5185(m)	>20	0	1	0
Water % ASTM D6304*	>0.005	0.001	0.001	0.00
ppm Water ppm ASTM D6304*	>50	9	1.4	0.00

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>5000	1953	1286	978
Particles >6µm ASTM D7647	>1300	595	332	218
Particles >14µm ASTM D7647	>320	42	19	20
Particles >21µm ASTM D7647	>80	9	4	5
Particles >38µm ASTM D7647	>20	1	0	0
Particles >71µm ASTM D7647	>4	0	0	0
Oil Cleanliness ISO 4406 (c)	>19/17/15	18/16/13	17/16/11	17/15/11



OIL ANALYSIS REPORT



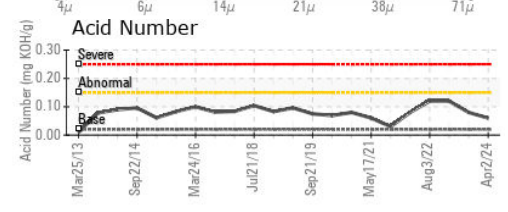
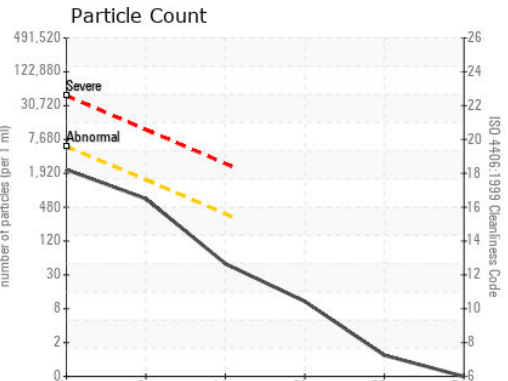
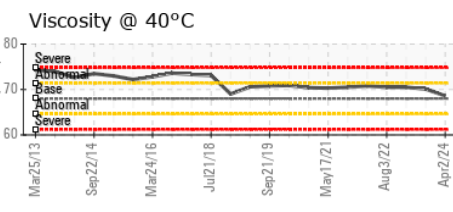
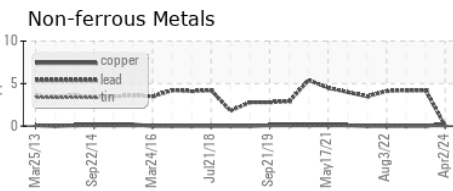
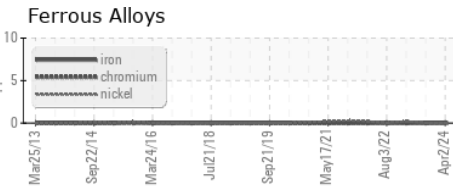
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	0.06	0.08	0.12

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	68.6	70.1	70.5
Oxidation Test (RPVOT)	minutes	ASTM D2272*	600	4492	---	967

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0871723
Lab Number : 02629641
Unique Number : 5762773
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

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.

Contact: Andrew Roffey
 andrew.roffey@brucepower.com
 T: (519)361-2673 x:17186
 F: