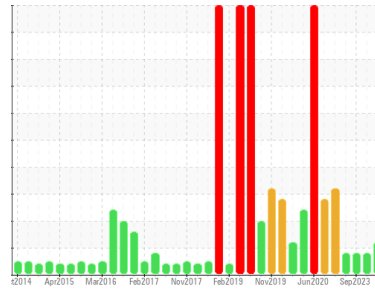




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Area
BRUCE A/0A/54600
 Machine Id
0A-54600-SG1-Avon Level Gauge
 Component
Jet Turbine
 Fluid
SHELL AEROSHELL 500 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for visible metal particles in the oil. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Light concentration of visible metal present.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0628164	WC0650242	WC0535189
Sample Date	Client Info		02 Jan 2024	06 Nov 2023	11 Sep 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			MARGINAL	ATTENTION	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >2	<1	<1	<1
Chromium	ppm	ASTM D5185(m) >1	0	0	0
Nickel	ppm	ASTM D5185(m) >1	<1	<1	<1
Titanium	ppm	ASTM D5185(m) >5	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	<1	0
Aluminum	ppm	ASTM D5185(m) >1	<1	0	<1
Lead	ppm	ASTM D5185(m) >2	0	0	0
Copper	ppm	ASTM D5185(m) >1	<1	<1	<1
Tin	ppm	ASTM D5185(m) >1	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	<1	<1	<1
Barium	ppm	ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	<1	0	0
Calcium	ppm	ASTM D5185(m) 0	1	0	<1
Phosphorus	ppm	ASTM D5185(m) 1000	1028	1003	1124
Zinc	ppm	ASTM D5185(m) 5	2	<1	2
Sulfur	ppm	ASTM D5185(m) 0	0	<1	2
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >5	3	<1	4
Sodium	ppm	ASTM D5185(m) >5	0	0	<1
Potassium	ppm	ASTM D5185(m) >20	5	0	<1
Water	%	ASTM D6304* >0.05	0.031	0.044	0.039
ppm Water	ppm	ASTM D6304* >500	313	442.7	398.6

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	3758	▲ 5487	▲ 6235
Particles >6µm	ASTM D7647	>1300	343	512	588
Particles >14µm	ASTM D7647	>320	11	16	13
Particles >21µm	ASTM D7647	>80	3	5	5
Particles >38µm	ASTM D7647	>20	1	2	2
Particles >71µm	ASTM D7647	>4	1	1	2
Oil Cleanliness	ISO 4406 (c)	>19/17/15	19/16/11	▲ 20/16/11	▲ 20/16/11

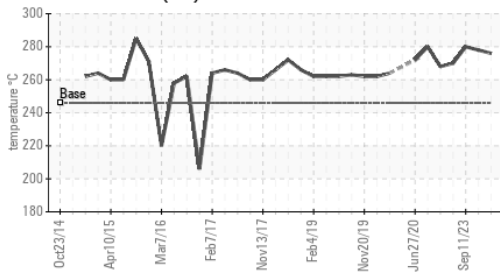
Particle Filter (Magn: 200 x)



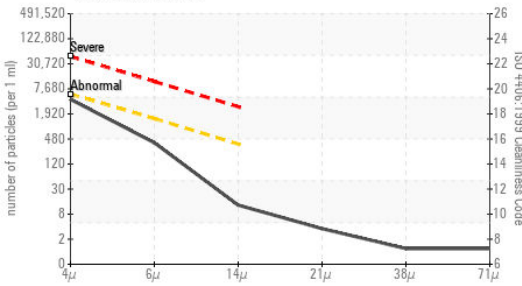


OIL ANALYSIS REPORT

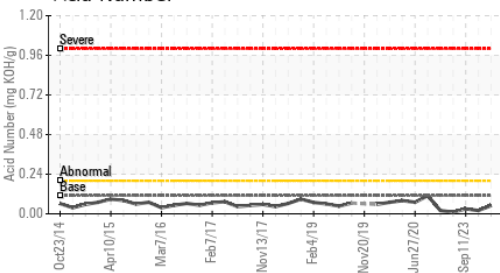
Flash Point (°C)



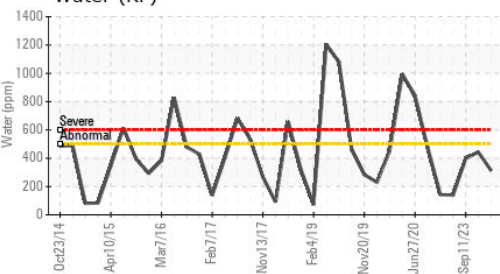
Particle Count



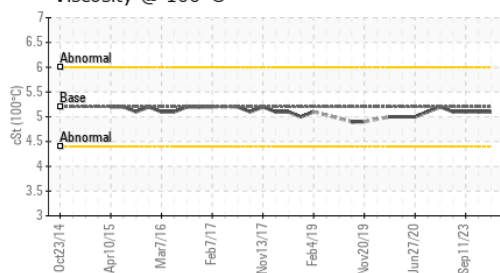
Acid Number



Water (KF)



Viscosity @ 100°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.11	0.05	0.02	0.03
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ VLITE	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*	>0.05	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)	25.3	25.3	25.3	25.2
Visc @ 100°C	cSt	ASTM D7279(m)	5.2	5.1	5.1	5.1
Viscosity Index (VI)	Scale	ASTM D2270*	141	133	133	134
COC Flash Point	°C	ASTM D92*	246	276	278	280

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						
PrtFilter						



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0628164
Lab Number : **02608157**
Unique Number : 5709243
Test Package : IND2+ (Additional Tests: BottomAnalysis, PrtFilter, Spat, VI, Visual)

Bruce Power - Bruce A PdM
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 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.