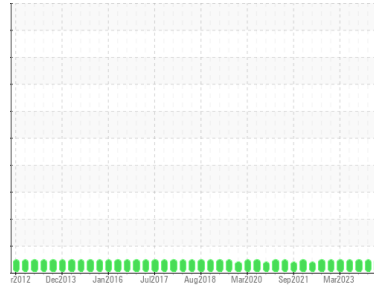




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**BRUCE B/5/33120**  
 Machine Id  
**5-33120-P2-PM Lower Brg**  
 Component  
**Lower Bearing**  
 Fluid  
**MOBIL DTE 732 (30 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

### Contaminants

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

### Oil 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	<b>WC0900689</b>	WC	WC0791619
Sample Date	Client Info	<b>11 Mar 2024</b>	18 Dec 2023	06 Sep 2023
Machine Age	hrs Client Info	<b>0</b>	0	0
Oil Age	hrs Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>1	<b>0</b>	0	0
Chromium ppm ASTM D5185(m)	>1	<b>0</b>	0	0
Nickel ppm ASTM D5185(m)	>1	<b>&lt;1</b>	<1	<1
Titanium ppm ASTM D5185(m)	>5	<b>0</b>	0	0
Silver ppm ASTM D5185(m)		<b>0</b>	0	0
Aluminum ppm ASTM D5185(m)	>1	<b>&lt;1</b>	<1	<1
Lead ppm ASTM D5185(m)	>3	<b>0</b>	0	0
Copper ppm ASTM D5185(m)	>1	<b>0</b>	0	0
Tin ppm ASTM D5185(m)	>1	<b>0</b>	0	0
Antimony ppm ASTM D5185(m)		<b>0</b>	0	0
Vanadium ppm ASTM D5185(m)		<b>0</b>	0	0
Beryllium ppm ASTM D5185(m)		<b>0</b>	0	0
Cadmium ppm ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

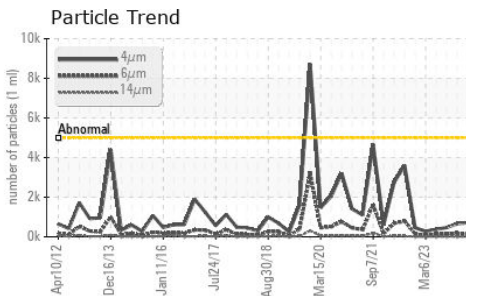
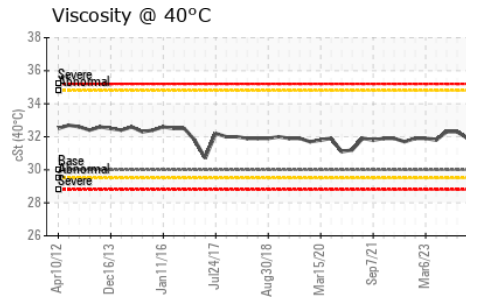
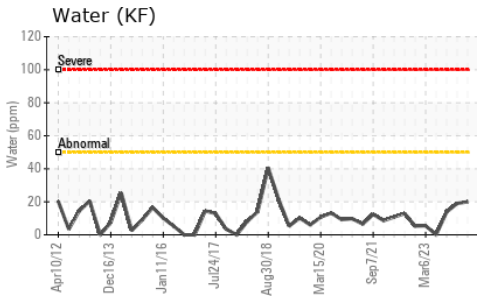
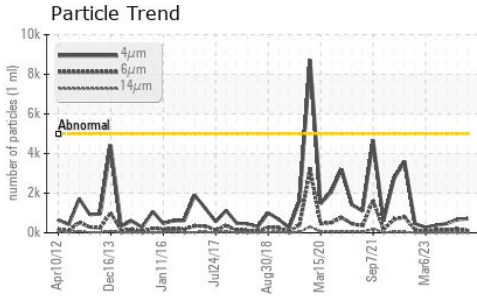
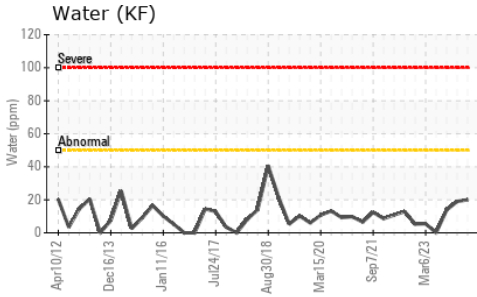
method	limit/base	current	history1	history2
Boron ppm ASTM D5185(m)		<b>0</b>	0	<1
Barium ppm ASTM D5185(m)		<b>0</b>	0	0
Molybdenum ppm ASTM D5185(m)		<b>0</b>	0	0
Manganese ppm ASTM D5185(m)		<b>0</b>	0	0
Magnesium ppm ASTM D5185(m)		<b>0</b>	0	<1
Calcium ppm ASTM D5185(m)		<b>0</b>	0	<1
Phosphorus ppm ASTM D5185(m)		<b>0</b>	0	<1
Zinc ppm ASTM D5185(m)		<b>&lt;1</b>	<1	1
Sulfur ppm ASTM D5185(m)		<b>50</b>	49	63
Lithium ppm ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>5	<b>0</b>	0	0
Sodium ppm ASTM D5185(m)	>5	<b>0</b>	0	0
Potassium ppm ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Water % ASTM D6304*	>0.005	<b>0.002</b>	0.002	0.001
ppm Water ppm ASTM D6304*	>50	<b>20</b>	19	13.8

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>5000	<b>709</b>	666	467
Particles >6µm ASTM D7647	>1300	<b>115</b>	179	169
Particles >14µm ASTM D7647	>320	<b>8</b>	11	16
Particles >21µm ASTM D7647	>80	<b>3</b>	1	4
Particles >38µm ASTM D7647	>20	<b>0</b>	0	0
Particles >71µm ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness ISO 4406 (c)	>19/17/15	<b>17/14/10</b>	17/15/11	16/15/11

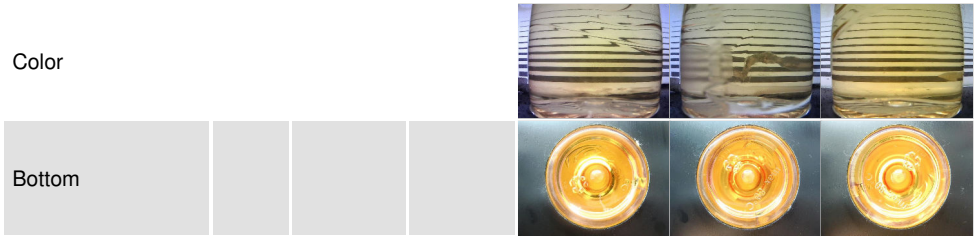


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.10	<b>0.04</b>	0.07	0.07

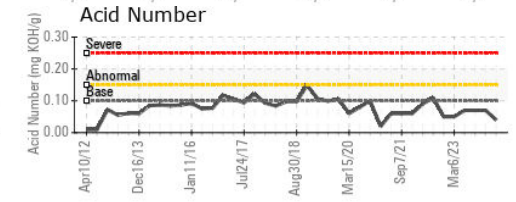
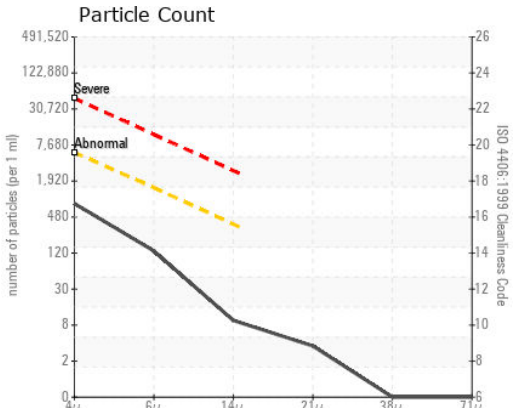
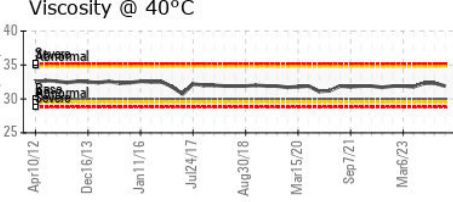
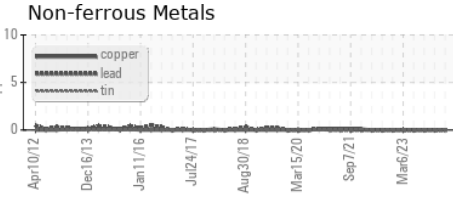
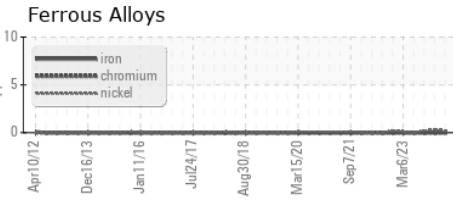
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.005	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	30.0	<b>31.9</b>	32.3	32.3

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0900689 **Received** : 19 Mar 2024  
**Lab Number** : **02623070** **Tested** : 20 Mar 2024  
**Unique Number** : 5748189 **Diagnosed** : 21 Mar 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: A-Ferr, Bottom, DR-Ferr )

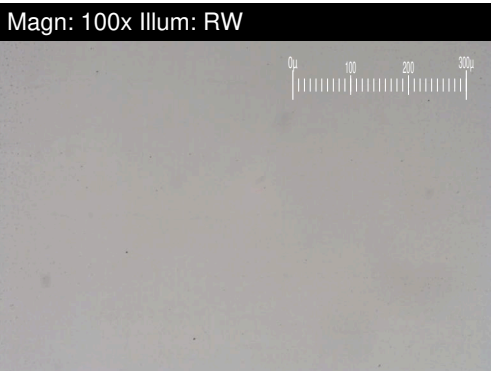
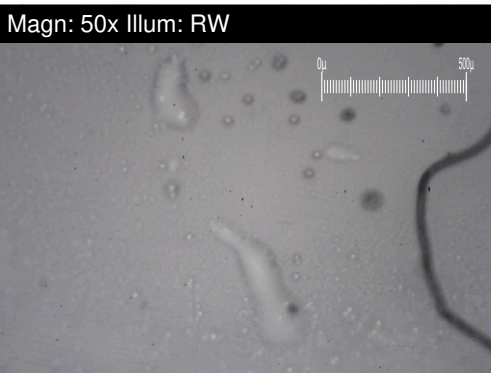
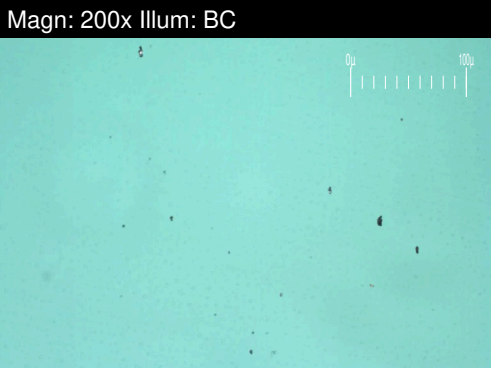
**Bruce Power - Bruce A PdM**  
 P.O.Box 1540, 177 Tie Road, RM-222 U2 Column 2N11 615  
 Tiverton, ON  
 CA N0G 2T0  
 Contact: Pierre Adouki  
 pierre.adouki@brucepower.com  
 T: (519)361-2673  
 F:

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.



# FERROGRAPHY REPORT

Area  
**BRUCE B/5/33120**  
 Machine Id  
**5-33120-P2-PM Lower Brg**  
 Component  
**Lower Bearing**  
 Fluid  
**MOBIL DTE 732 (30 GAL)**

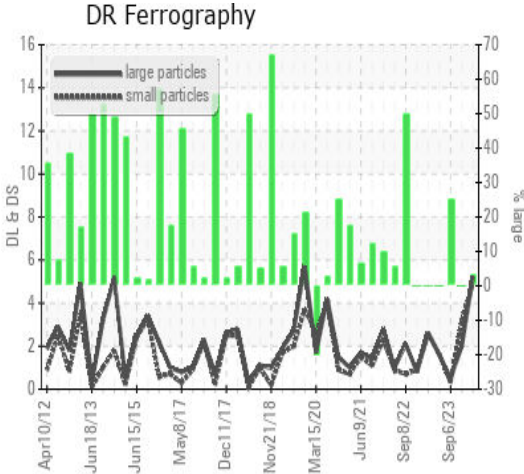


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		<b>5.2</b>	2.0	0.5
Small Particles		DR-Ferr*		<b>4.9</b>	3.2	0.3
Total Particles		DR-Ferr*	>---	<b>10.1</b>	5.2	0.8
Large Particles Percentage	%	DR-Ferr*		<b>3</b>	0	25
Severity Index		DR-Ferr*		<b>2</b>	2	0

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*				
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		<b>1</b>		

## WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.



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