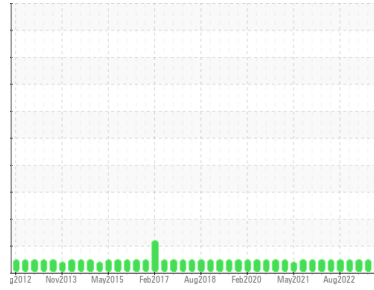




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
BRUCE B/7/33120
 Machine Id
7-33120-P1-PM Up Brg
 Component
Upper Bearing
 Fluid
MOBIL DTE 732 (280 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

The Direct-Reading Ferrographic data (DL, DS, %large) is normal. 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		WC0744570	WC0791646	WC0744497
Sample Date	Client Info		14 Aug 2023	09 May 2023	15 Feb 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	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >1	0	0	0
Chromium	ppm	ASTM D5185(m) >1	0	0	0
Nickel	ppm	ASTM D5185(m) >1	<1	0	0
Titanium	ppm	ASTM D5185(m) >5	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >1	<1	0	0
Lead	ppm	ASTM D5185(m) >3	0	0	0
Copper	ppm	ASTM D5185(m) >1	0	0	0
Tin	ppm	ASTM D5185(m) >1	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

DR-FERROGRAPHY

	method	limit/base	current	history1	history2
Large Particles	DR-Ferr*		1.3	0.8	8.1
Small Particles	DR-Ferr*		0.5	0.4	7.3
Total Particles	DR-Ferr*	>---	1.8	1.2	15.4
Large Particles Percentage	%	DR-Ferr*	44.4	33.3	5.2
Severity Index	DR-Ferr*		1	0	6

ADDITIVES

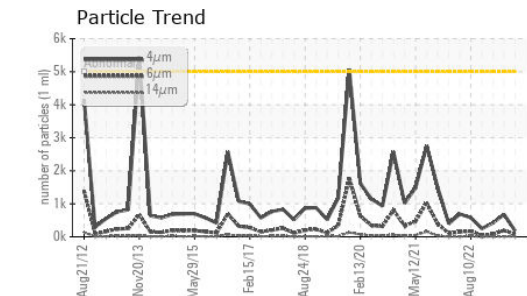
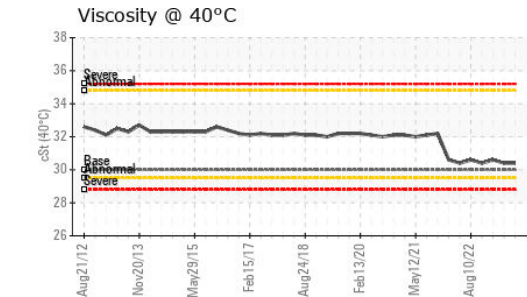
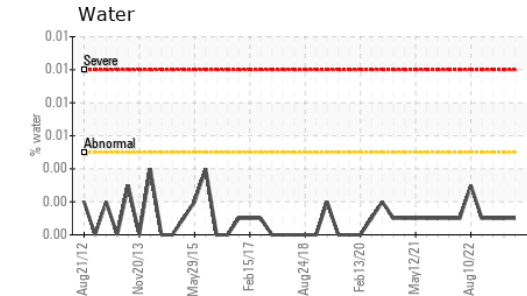
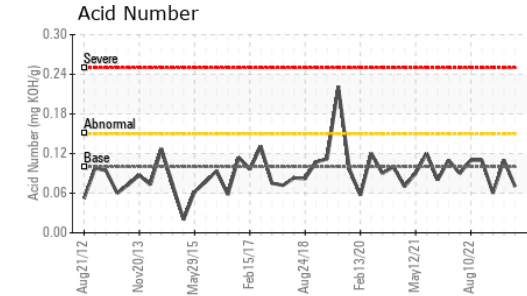
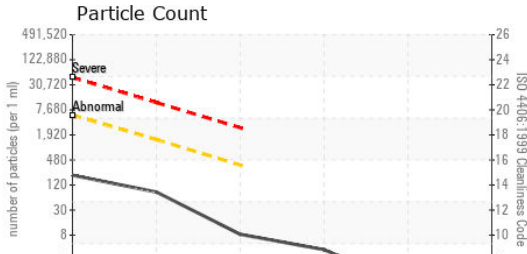
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	0	0
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	0	0
Calcium	ppm	ASTM D5185(m)	<1	0	0
Phosphorus	ppm	ASTM D5185(m)	0	0	0
Zinc	ppm	ASTM D5185(m)	1	<1	<1
Sulfur	ppm	ASTM D5185(m)	50	50	54
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	0	0
Water	%	ASTM D6304* >0.005	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304* >50	1.4	12.0	11.5



OIL ANALYSIS REPORT



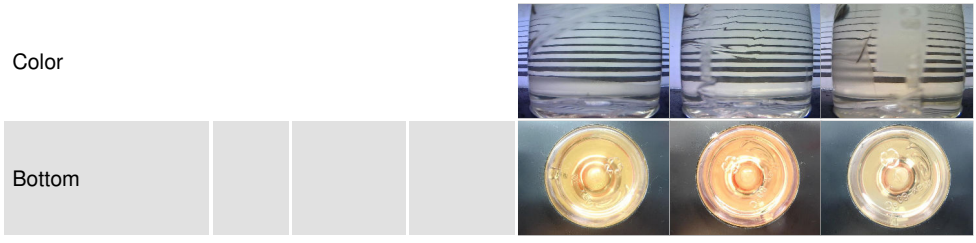
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	182	676	424
Particles >6µm	ASTM D7647	>1300	72	194	83
Particles >14µm	ASTM D7647	>320	7	13	8
Particles >21µm	ASTM D7647	>80	3	2	2
Particles >38µm	ASTM D7647	>20	0	0	1
Particles >71µm	ASTM D7647	>4	0	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/15	15/13/10	17/15/11	16/14/10

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.10	0.07	0.11	0.06

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)	30.0	30.4	30.4	30.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



ISO 17025:2017 Accredited Laboratory
 Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC0744570
 Lab Number : **02577202**
 Unique Number : 5630262
 Test Package : IND 2 (Additional Tests: Bottom, DR-Ferr, TAN Man)
 Received : 21 Aug 2023
 Diagnosed : 23 Aug 2023
 Diagnostician : Kevin Marson
 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.

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: