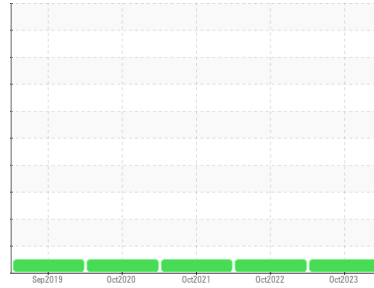




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
C-GMFZ
 Machine Id
[C-GMFZ] BOMBARDIER CL-415 PCE-AF0130 - C-GMFZ
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (14 LTR)

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 water content is negligible. There is no indication of any contamination in the oil.

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	WC0762794	WC0732109	WC0626601
Sample Date	Client Info	19 Oct 2023	25 Oct 2022	13 Oct 2021
TSN	hrs Client Info	1890	1604	1449
TSO	hrs Client Info	0	0	0
Oil Age	hrs Client Info	236	155	287
Oil Changed	Client Info	N/A	Changed	Changed
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >8	0	0	0
Chromium	ppm ASTM D5185(m) >2	0	0	0
Nickel	ppm ASTM D5185(m) >2	0	<1	<1
Titanium	ppm ASTM D5185(m) >2	0	0	0
Silver	ppm ASTM D5185(m) >2	<1	0	0
Aluminum	ppm ASTM D5185(m) >2	0	<1	0
Lead	ppm ASTM D5185(m) >3	0	0	0
Copper	ppm ASTM D5185(m) >3	<1	0	<1
Tin	ppm ASTM D5185(m) >2	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	2
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 0	1	1	2
Manganese	ppm ASTM D5185(m)	0	0	0
Magnesium	ppm ASTM D5185(m) 0	0	0	0
Calcium	ppm ASTM D5185(m) 0	0	0	0
Phosphorus	ppm ASTM D5185(m) 2500	2571	2615	2593
Zinc	ppm ASTM D5185(m) 0	<1	<1	0
Sulfur	ppm ASTM D5185(m) 0	0	0	13
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

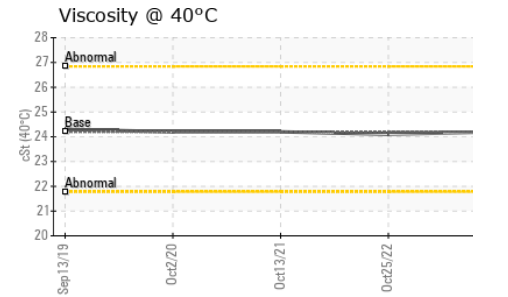
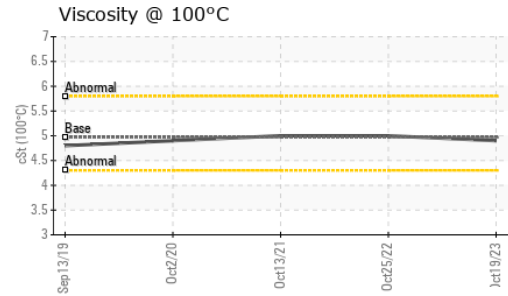
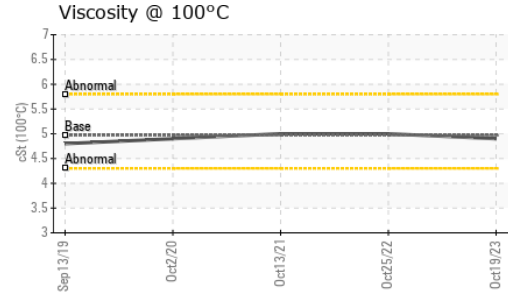
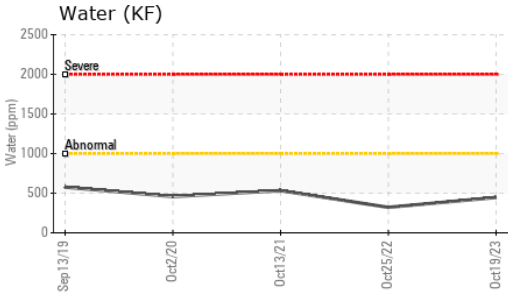
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >8	0	0	0
Sodium	ppm ASTM D5185(m)	<1	<1	0
Potassium	ppm ASTM D5185(m) >20	0	0	<1
Water	% ASTM D6304* >0.1	0.044	0.032	0.053
ppm Water	ppm ASTM D6304* >1000	446.6	321.7	532.8

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974* 0.43	0.27	0.24	0.22



OIL ANALYSIS REPORT



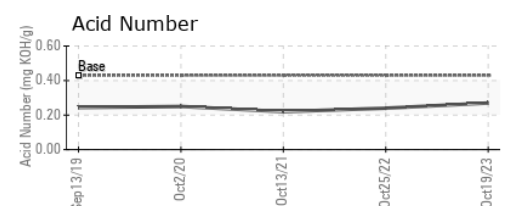
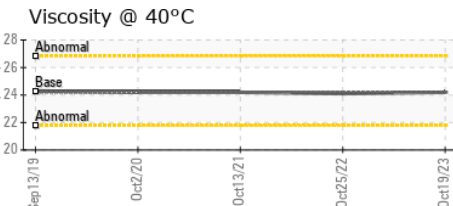
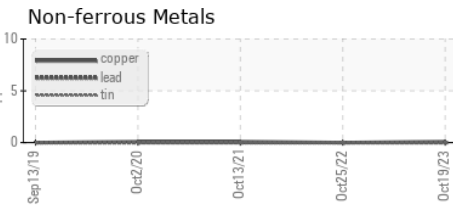
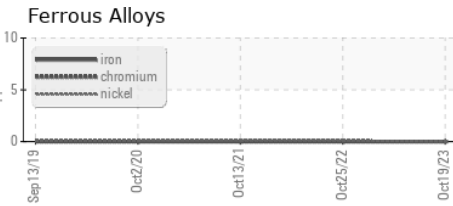
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	24.1	24.2
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5	5
Viscosity Index (VI)	Scale	ASTM D2270*	134	137	136

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0762794 **Received** : 24 Oct 2023
Lab Number : 02591383 **Diagnosed** : 31 Oct 2023
Unique Number : 5668462 **Diagnostician** : Kevin Marson
Test Package : AVI 3

Babcock International
 2450 Saskatchewan Ave
 Winnipeg, MB
 CA R3J 3Y9
 Contact: Pam Ashton
 Pam.ashton@babcockinternational.com
 T: (204)832-6463
 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.



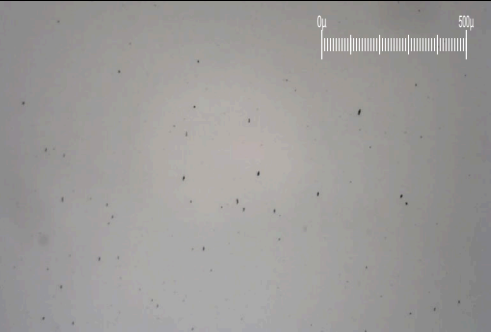
FERROGRAPHY REPORT

Area
C-GMFZ
 Machine Id
[C-GMFZ] BOMBARDIER CL-415 PCE-AF0130 - C-GMFZ
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (14 LTR)

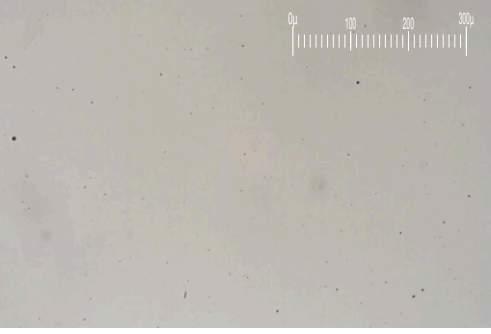
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

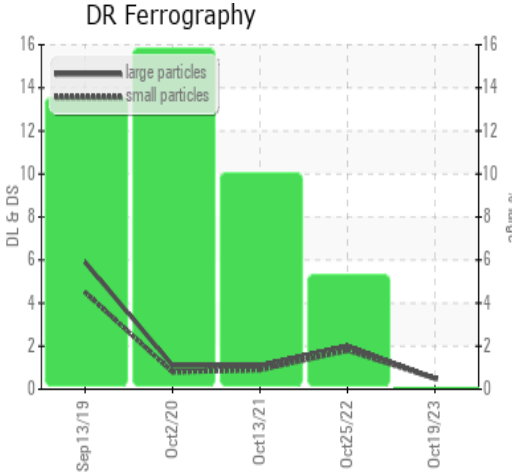


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		0.5	2.0	1.1
Small Particles		DR-Ferr*		0.5	1.8	0.9
Total Particles		DR-Ferr*	>---	1	3.8	2
Large Particles Percentage	%	DR-Ferr*		0	5.3	10
Severity Index		DR-Ferr*		0	0	0.2

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		1	1	1
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1	1	
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*		1		1
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1	1	1

WEAR

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



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