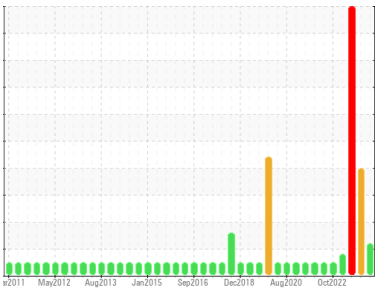
PROBLEM SUMMARY

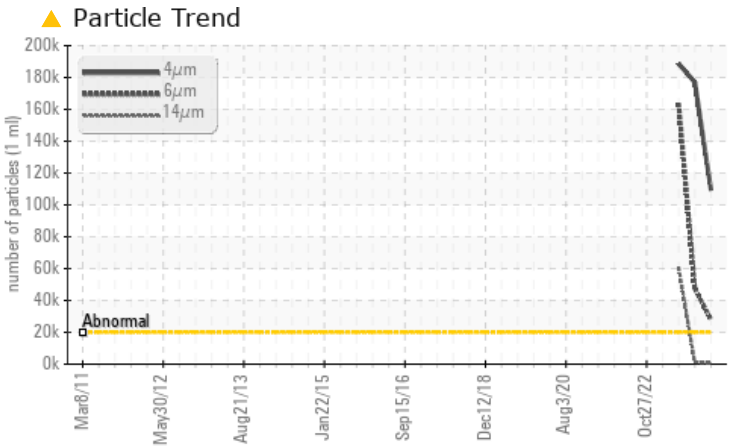
Sample Rating Trend



ISO

Area
Banbury 2
Machine Id
BB02 C Roll Drive
Component
Gearbox
Fluid
SHELL OMALA S2 G 220 (50 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	SEVERE
Particles >4µm		ASTM D7647	>20000	▲ **109316**	⬢ 176962	⬢ 188536
Particles >6µm		ASTM D7647	>5000	▲ **27985**	⬢ 47305	⬢ 163456
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **24/22/16**	⬢ 25/23/18	⬢ 25/25/23

Customer Id: GOONAP
Sample No.: WC
Lab Number: 02592287
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

12 Oct 2023 Diag: Wes Davis

ISO

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

25 Aug 2023 Diag: Kevin Marson

WEAR

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.PQ levels are abnormal. Iron ppm levels are abnormal. Moderate concentration of visible metal present. Bearing and/or bushing wear is indicated. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

05 Feb 2023 Diag: Kevin Marson

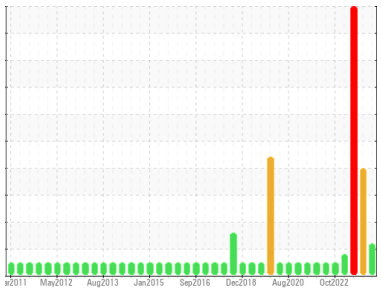
WEAR

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Banbury 2
Machine Id
BB02 C Roll Drive
Component
Gearbox
Fluid
SHELL OMALA S2 G 220 (50 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC**	WC	WC0841267
Sample Date		Client Info		**25 Oct 2023**	12 Oct 2023	25 Aug 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				**ABNORMAL**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	**13**	10	▲ 228
Chromium	ppm	ASTM D5185(m)	>15	**0**	0	2
Nickel	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	**0**	<1	<1
Lead	ppm	ASTM D5185(m)	>100	**0**	<1	4
Copper	ppm	ASTM D5185(m)	>200	**<1**	<1	42
Tin	ppm	ASTM D5185(m)	>25	**0**	0	<1
Antimony	ppm	ASTM D5185(m)	>5	**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

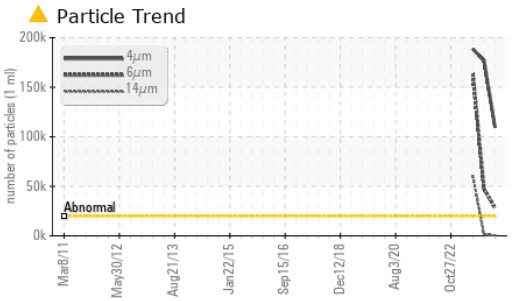
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	4.4	**2**	2	<1
Barium	ppm	ASTM D5185(m)	0.0	**<1**	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	**4**	3	20
Manganese	ppm	ASTM D5185(m)		**0**	0	2
Magnesium	ppm	ASTM D5185(m)	0	**0**	0	0
Calcium	ppm	ASTM D5185(m)	0	**25**	34	3
Phosphorus	ppm	ASTM D5185(m)	215	**270**	282	263
Zinc	ppm	ASTM D5185(m)	0	**15**	10	78
Sulfur	ppm	ASTM D5185(m)	7039	**8998**	9414	7915
Lithium	ppm	ASTM D5185(m)		**2**	2	<1

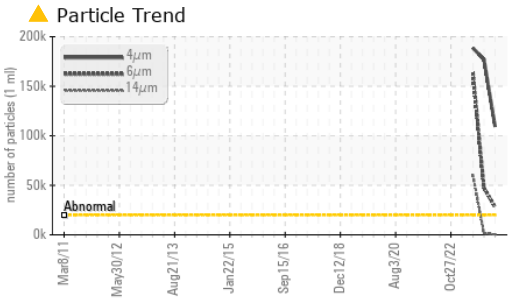
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**3**	4	3
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	0

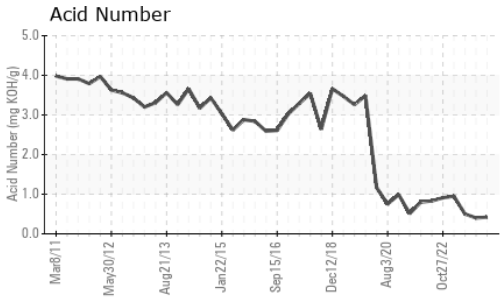
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **109316**	⬢ 176962	⬢ 188536
Particles >6µm		ASTM D7647	>5000	▲ **27985**	⬢ 47305	⬢ 163456
Particles >14µm		ASTM D7647	>640	**434**	▲ 1324	⬢ 60663
Particles >21µm		ASTM D7647	>160	**48**	213	⬢ 16845
Particles >38µm		ASTM D7647	>40	**4**	2	▲ 57
Particles >71µm		ASTM D7647	>10	**3**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **24/22/16**	⬢ 25/23/18	⬢ 25/25/23

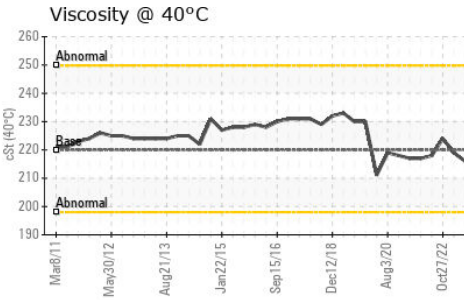
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.42**	0.40	0.50

OIL ANALYSIS REPORT



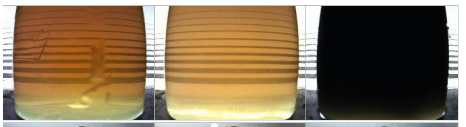
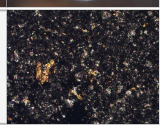




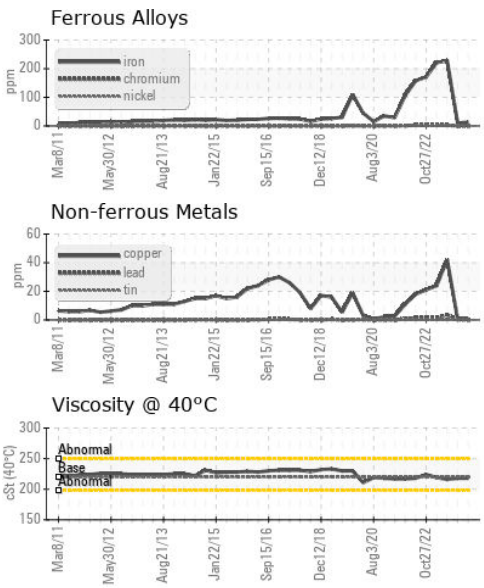


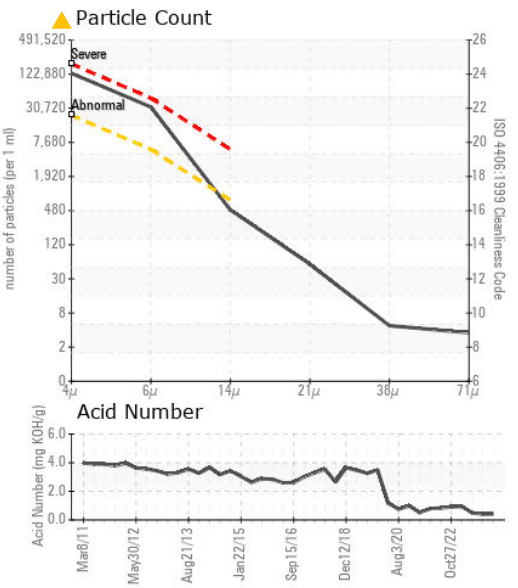
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	VLITE	▲ MODER
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	▲ LIGHT
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
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*	>0.2	**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)	220	**218**	218	216

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter			*no image*	*no image*	

GRAPHS





ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02592287
Unique Number : 5669366
Test Package : IND 2 (Additional Tests: PRTCOUNT, TAN Man)
Received : 26 Oct 2023
Diagnosed : 30 Oct 2023
Diagnostician : Wes Davis

Goodyear Napanee
388 Goodyear Road
Napanee, ON
CA K7R 3L2
Contact: Mohammad Waleed
Mohammad_Waleed@goodyear.com
T: (613)354-7709
F: (613)354-9377

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.