

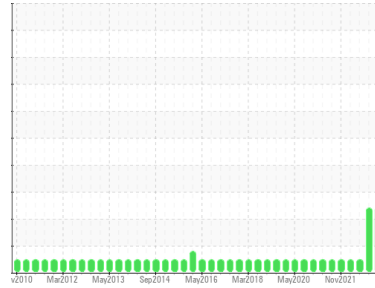


PROBLEM SUMMARY

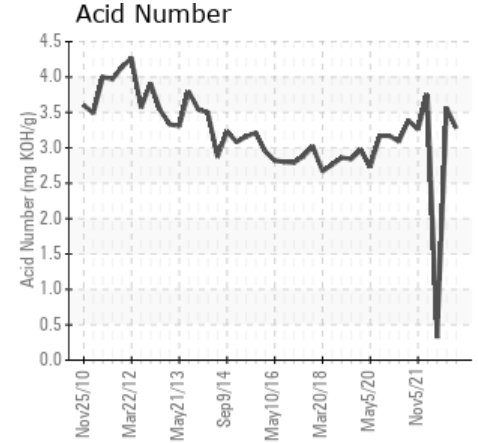
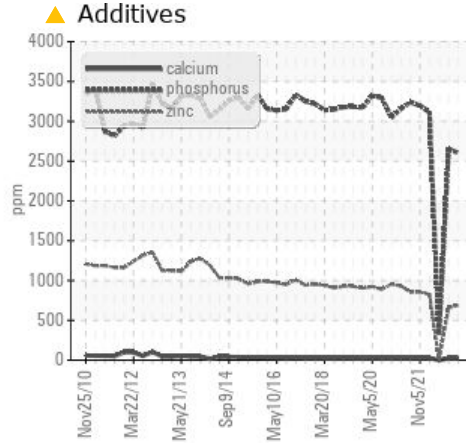
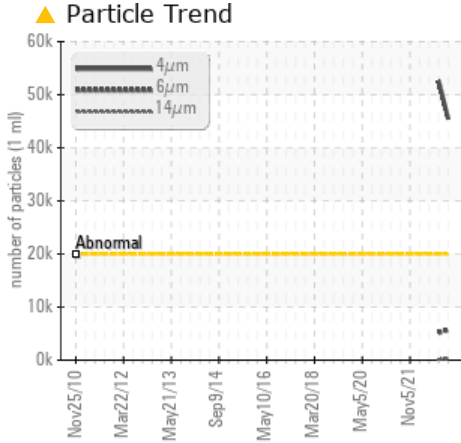
Sample Rating Trend

ADDITIVES

Area
Banbury 1
 Machine Id
BB01 Mori Speed Rod A
 Component
Gearbox
 Fluid
SHELL OMALA S2 GX 220 (80 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	NORMAL	
Molybdenum	ppm	ASTM D5185(m)	0	▲ 1685	▲ 1615	6
Phosphorus	ppm	ASTM D5185(m)	290	▲ 2604	▲ 2651	330
Zinc	ppm	ASTM D5185(m)	3.8	▲ 690	▲ 660	4
Particles >4µm		ASTM D7647	>20000	▲ 45452	▲ 52619	---
Particles >6µm		ASTM D7647	>5000	▲ 5674	▲ 5156	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/20/15	▲ 23/20/14	---

Customer Id: GOONAP
 Sample No.: WC0873585
 Lab Number: 02602425
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

25 Aug 2023 Diag: Kevin Marson

ADDITIVES



We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Additive levels indicate the addition of a different brand, or type of 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



05 Feb 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



27 Oct 2022 Diag: Kevin Marson

NORMAL



Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



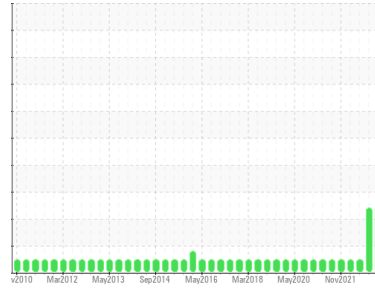


OIL ANALYSIS REPORT

Sample Rating Trend

ADDITIVES

Area
Banbury 1
 Machine Id
BB01 Mori Speed Rod A
 Component
Gearbox
 Fluid
SHELL OMALA S2 GX 220 (80 GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. 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 above the recommended limit. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0873585	WC0841263	WC0754388
Sample Date	Client Info		05 Nov 2023	25 Aug 2023	05 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			ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	37	34	<1
Chromium	ppm	ASTM D5185(m)	>15	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>15	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	7	3	<1
Lead	ppm	ASTM D5185(m)	>100	2	2	0
Copper	ppm	ASTM D5185(m)	>200	18	18	0
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Antimony	ppm	ASTM D5185(m)	>5	<1	<1	0
Vanadium	ppm	ASTM D5185(m)		0	<1	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)	6.2	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0.0	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	▲ 1685	▲ 1615	6
Manganese	ppm	ASTM D5185(m)		0	<1	0
Magnesium	ppm	ASTM D5185(m)	0	0	<1	<1
Calcium	ppm	ASTM D5185(m)	0.0	25	23	0
Phosphorus	ppm	ASTM D5185(m)	290	▲ 2604	▲ 2651	330
Zinc	ppm	ASTM D5185(m)	3.8	▲ 690	▲ 660	4
Sulfur	ppm	ASTM D5185(m)	8167	8652	8741	8113
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

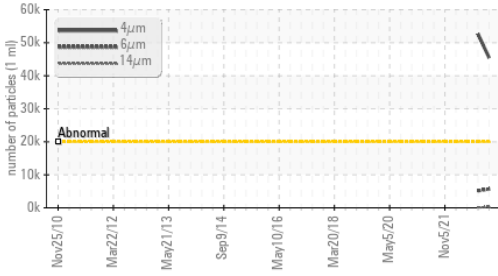
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>50	23	18	1
Sodium	ppm	ASTM D5185(m)		<1	2	<1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0

FLUID CLEANLINESS

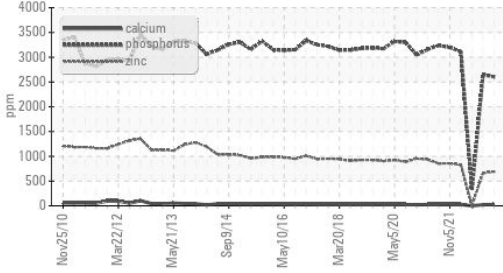
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 45452	▲ 52619	---
Particles >6µm	ASTM D7647	>5000	▲ 5674	▲ 5156	---
Particles >14µm	ASTM D7647	>640	206	132	---
Particles >21µm	ASTM D7647	>160	36	34	---
Particles >38µm	ASTM D7647	>40	2	2	---
Particles >71µm	ASTM D7647	>10	0	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/20/15	▲ 23/20/14	---

OIL ANALYSIS REPORT

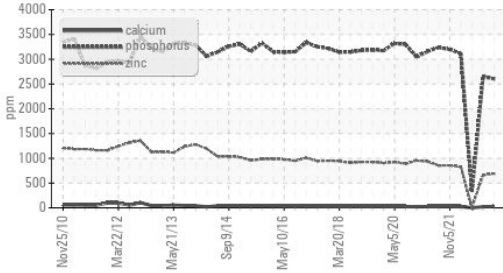
Particle Trend



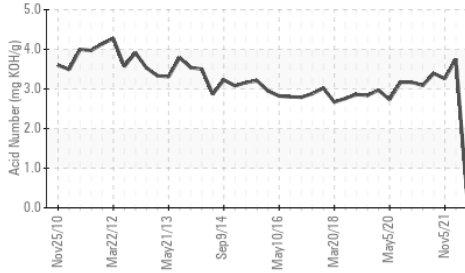
Additives



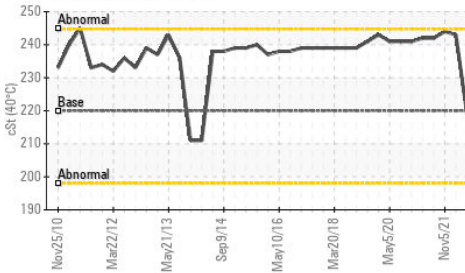
Additives



Acid Number



Viscosity @ 40°C



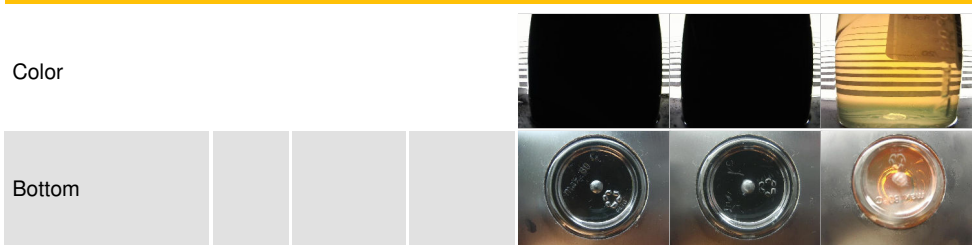
FLUID DEGRADATION

method	limit/base	current	history1	history2		
Acid Number (AN) mg KOH/g	ASTM D974*	3.28	3.56	0.32		
VISUAL						
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	VLITE	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

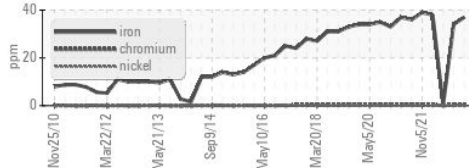
method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	220	240	237	219

SAMPLE IMAGES

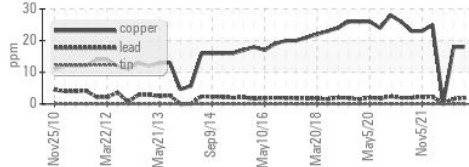


GRAPHS

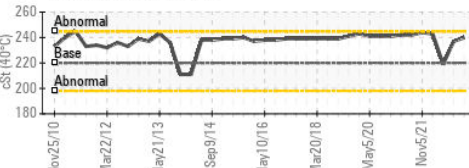
Ferrous Alloys



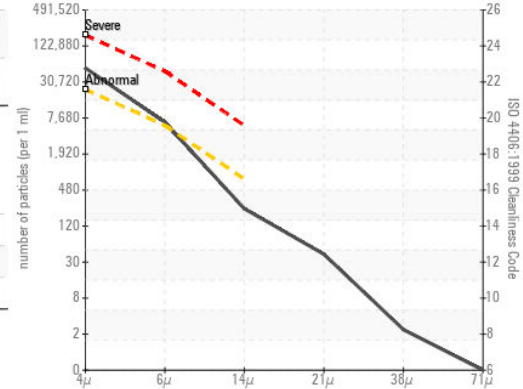
Non-ferrous Metals



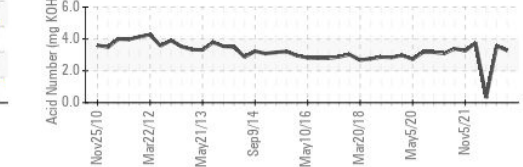
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0873585 **Received** : 11 Dec 2023
Lab Number : **02602425** **Diagnosed** : 20 Dec 2023
Unique Number : 5695510 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

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.

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