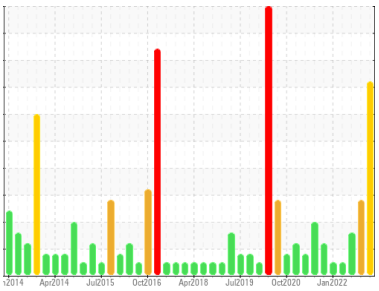
PROBLEM SUMMARY

Sample Rating Trend

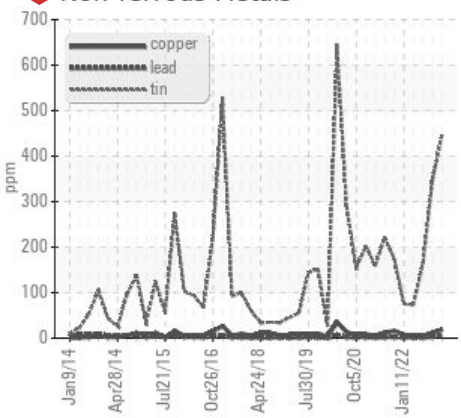


WEAR

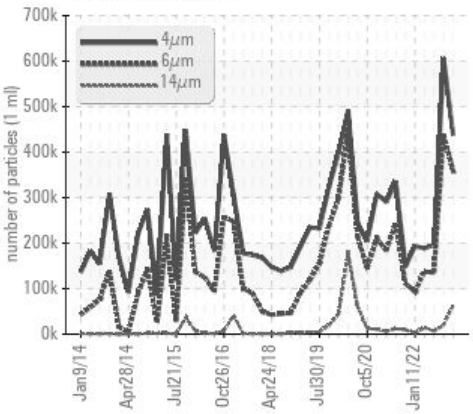
Area
8
Machine Id
8-2-301-C FM #2 Trunion - DIscharge End
Component
Journal Bearing
Fluid
MOBIL MOBILGEAR SHC 460 (350 LTR)

COMPONENT CONDITION SUMMARY

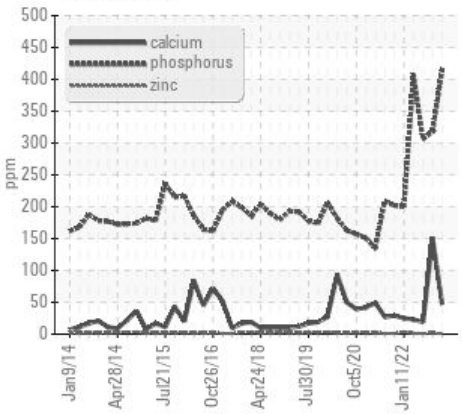
Non-ferrous Metals



Particle Trend



Additives



RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Tin	ppm	ASTM D5185(m)	>80	**448**	348	165
Antimony	ppm	ASTM D5185(m)		**40**	27	12
Particles >6µm		ASTM D7647	>320000	**359452**	438164	135297
Oil Cleanliness		ISO 4406 (c)	>--/25/24	**26/26/23**	26/26/21	25/24/20

Customer Id: STMBOW
Sample No.: WC0818189
Lab Number: 02560375
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
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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	---	---	?	Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).
Contact Required	---	---	?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert	---	---	?	NOTE: We recommend using IND 3 test kits,
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

WEAR

16 Nov 2022 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. 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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.Tin and antimony ppm levels are abnormal. Bearing wear is indicated. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Calcium and/or magnesium levels higher than normal indicating possible contamination with cement dust, advise investigate. Viscosity of sample indicates oil is within SAE 140 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid.

view report

WEAR

26 Jul 2022 Diag: Kevin Marson

Resample at the next service interval to monitor. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).Tin ppm levels are abnormal. Antimony ppm levels are marginal. A sharp increase in the tin level is noted. A sharp increase in the antimony level is noted. Bearing wear is indicated. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

NORMAL

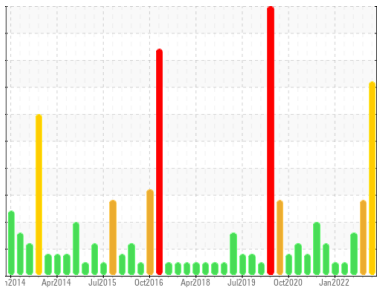
16 May 2022 Diag: Kevin Marson

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. 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



WEAR

Area
8
Machine Id
8-2-301-C FM #2 Trunion - DIscharge End
Component
Journal Bearing
Fluid
MOBIL MOBILGEAR SHC 460 (350 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Tin ppm levels are severe. Antimony ppm levels are abnormal. Bearing wear is indicated.

Contamination

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

Fluid Condition

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0818189**	WC0751942	WC0714976
Sample Date		Client Info		**17 May 2023**	16 Nov 2022	26 Jul 2022
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				**SEVERE**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>60	**44**	34	19
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>4	**2**	2	<1
Lead	ppm	ASTM D5185(m)	>250	**5**	3	2
Copper	ppm	ASTM D5185(m)	>125	**19**	12	5
Tin	ppm	ASTM D5185(m)	>80	**448**	348	165
Antimony	ppm	ASTM D5185(m)		**40**	27	12
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)	5.7	**9**	2	4
Barium	ppm	ASTM D5185(m)	0.0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0.0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	0.0	**1**	3	<1
Calcium	ppm	ASTM D5185(m)	0.0	**47**	151	19
Phosphorus	ppm	ASTM D5185(m)	180	**415**	318	306
Zinc	ppm	ASTM D5185(m)	0.8	**<1**	1	1
Sulfur	ppm	ASTM D5185(m)	4270	**4461**	2675	2427
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

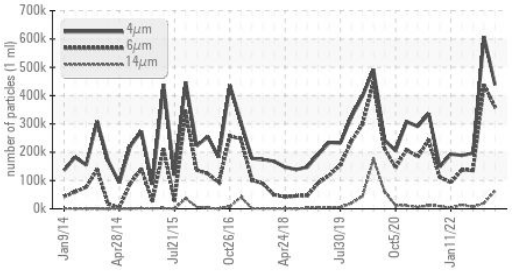
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**7**	6	4
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**2**	4	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**437896**	606769	196563
Particles >6µm		ASTM D7647	>320000	**359452**	438164	135297
Particles >14µm		ASTM D7647	>160000	**63284**	19626	6462
Particles >21µm		ASTM D7647	>40000	**3702**	527	400
Particles >38µm		ASTM D7647	>10000	**2**	0	1
Particles >71µm		ASTM D7647	>2500	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/25/24	**26/26/23**	26/26/21	25/24/20

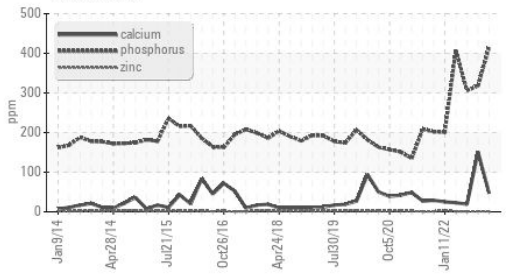
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.38	**0.66**	0.42	0.71

OIL ANALYSIS REPORT

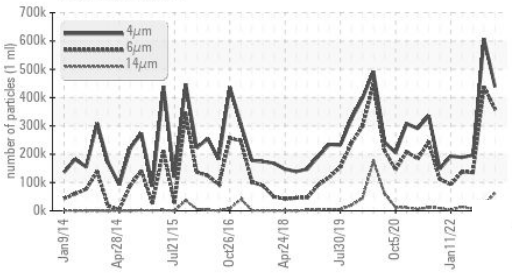
Particle Trend



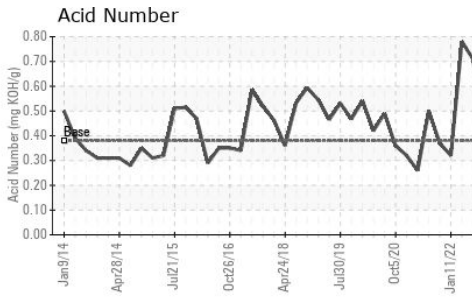
Additives



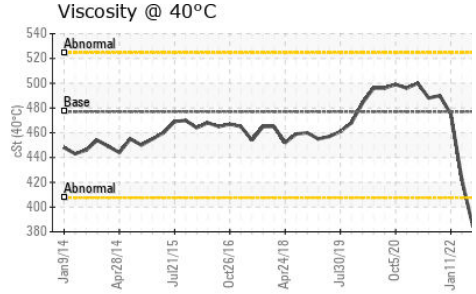
Particle Trend



Acid Number



Viscosity @ 40°C



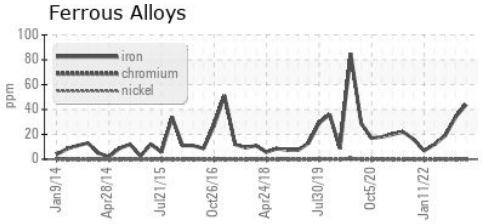
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	LIGHT	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>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)	477	**436**	▲ 387	▲ 384

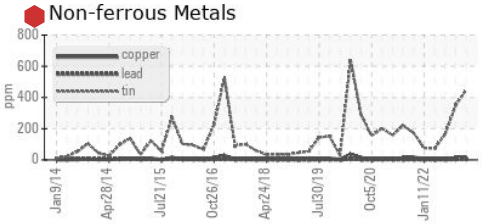
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

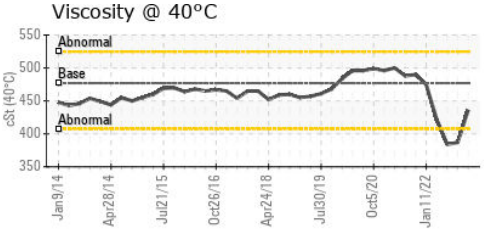
Ferrous Alloys



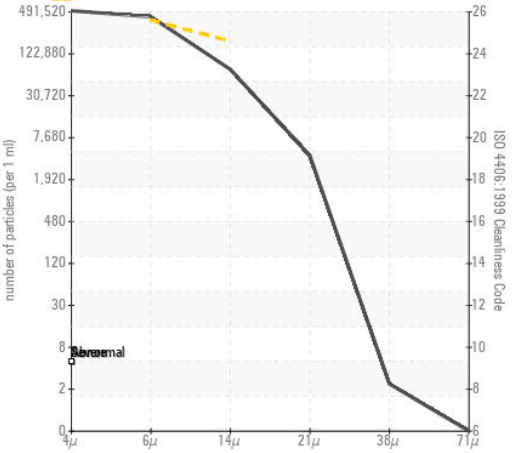
Non-ferrous Metals



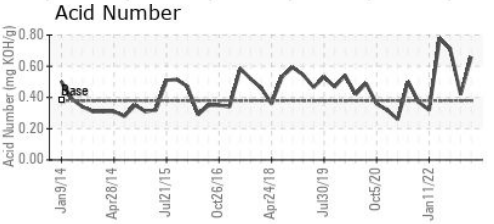
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0818189 **Received** : 29 May 2023
Lab Number : 02560375 **Diagnosed** : 30 May 2023
Unique Number : 5581415 **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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