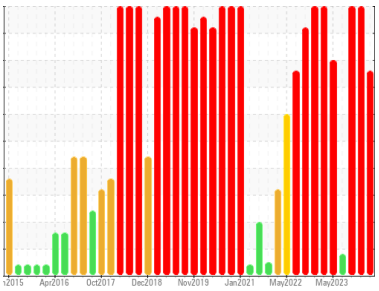
PROBLEM SUMMARY

Sample Rating Trend

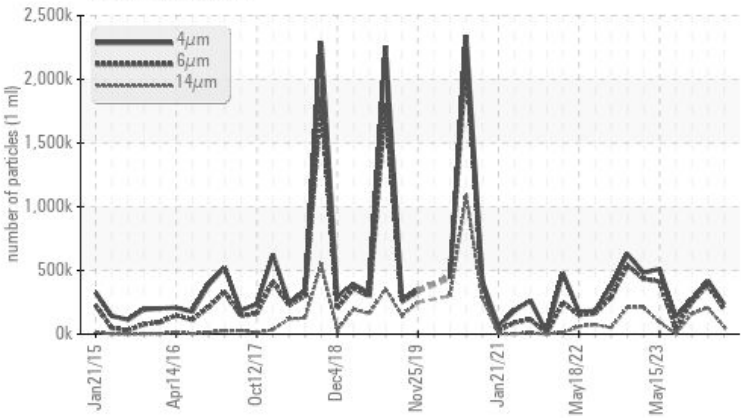


ISO

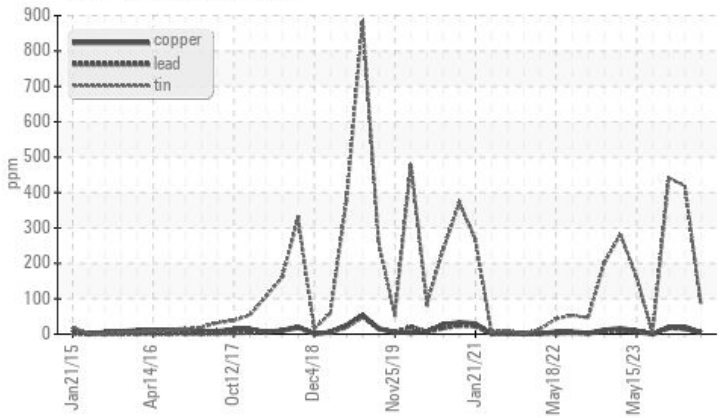
Area
6
Machine Id
6-3-652 Coal Mill Slide Shoe L/P Gear
Component
Pump
Fluid
MOBIL MOBILGEAR SHC 460 (300 LTR)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Non-ferrous Metals



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. 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.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Tin	ppm	ASTM D5185(m)	>9	▲ **84**	▲ 419	▲ 442
Particles >6µm		ASTM D7647	>20000	▲ **197422**	▲ 385088	▲ 251155
Particles >14µm		ASTM D7647	>5000	▲ **58474**	▲ 208011	▲ 159645
Particles >21µm		ASTM D7647	>1300	▲ **13044**	▲ 96561	▲ 83611
Oil Cleanliness		ISO 4406 (c)	>--/21/19	▲ **25/25/23**	▲ 26/26/25	▲ 25/25/24

Customer Id: STMBOW
Sample No.: WC0925352
Lab Number: 02629375
Test Package: IND 2

To manage this report scan the QR code

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Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	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.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

WEAR

20 Feb 2024 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. 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. 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). Resample in 30-45 days to monitor this situation.Tin and antimony ppm levels are severe. Lead ppm levels are abnormal. Bearing and/or bushing wear is indicated. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. 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

WEAR

28 Nov 2023 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. 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. 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). Resample in 30-45 days to monitor this situation.Tin and antimony ppm levels are severe. Lead ppm levels are abnormal. Copper ppm levels are noted. Bearing and/or bushing wear is indicated. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. 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

ISO

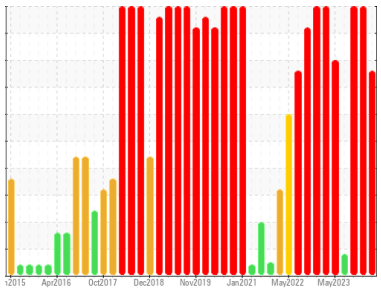
14 Sep 2023 Diag: Wes Davis

We recommend you service the filters on this component. 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. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. 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

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
6
Machine Id
6-3-652 Coal Mill Slide Shoe L/P Gear
Component
Pump
Fluid
MOBIL MOBILGEAR SHC 460 (300 LTR)

DIAGNOSIS

▲ Recommendation
We advise that you check all areas where contaminants can enter the system. 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.

▲ Wear
The tin level has decreased, but is still abnormal. Bearing and/or bushing wear is indicated.

▲ Contamination
There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

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		**WC0925352**	WC0902065	WC0869895
Sample Date		Client Info		**05 Apr 2024**	20 Feb 2024	28 Nov 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				**SEVERE**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	**3**	16	15
Chromium	ppm	ASTM D5185(m)	>5	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>3	**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>7	**<1**	2	3
Lead	ppm	ASTM D5185(m)	>12	**2**	▲ 15	▲ 17
Copper	ppm	ASTM D5185(m)	>30	**5**	21	● 21
Tin	ppm	ASTM D5185(m)	>9	▲ **84**	▲ 419	▲ 442
Antimony	ppm	ASTM D5185(m)		**12**	▲ 64	▲ 67
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	2	2

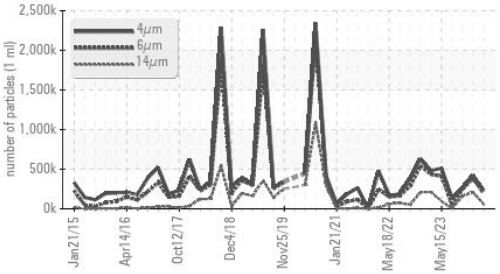
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5.7	**4**	8	8
Barium	ppm	ASTM D5185(m)	0.0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	0.0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0.0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	0.0	**2**	6	9
Phosphorus	ppm	ASTM D5185(m)	180	**401**	365	361
Zinc	ppm	ASTM D5185(m)	0.8	**<1**	1	1
Sulfur	ppm	ASTM D5185(m)	4270	**1715**	4031	3969
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>60	**11**	4	7
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	1	<1

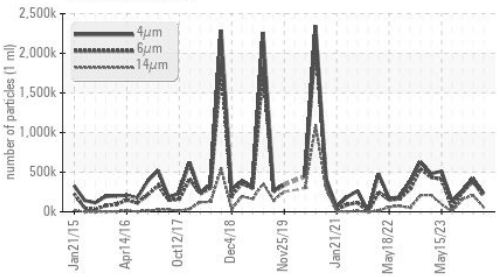
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**234624**	420055	265842
Particles >6µm		ASTM D7647	>20000	▲ **197422**	▲ 385088	▲ 251155
Particles >14µm		ASTM D7647	>5000	▲ **58474**	▲ 208011	▲ 159645
Particles >21µm		ASTM D7647	>1300	▲ **13044**	▲ 96561	▲ 83611
Particles >38µm		ASTM D7647	>320	**108**	▲ 3645	▲ 1446
Particles >71µm		ASTM D7647	>80	**5**	6	1
Oil Cleanliness		ISO 4406 (c)	>--/21/19	▲ **25/25/23**	▲ 26/26/25	▲ 25/25/24

OIL ANALYSIS REPORT

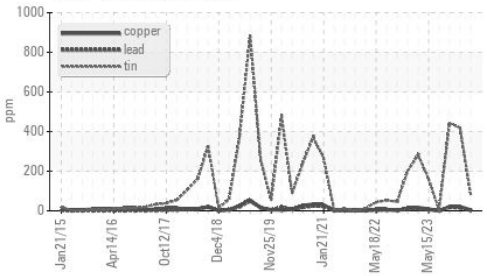
Particle Trend



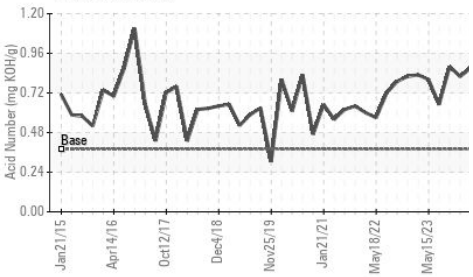
Particle Trend



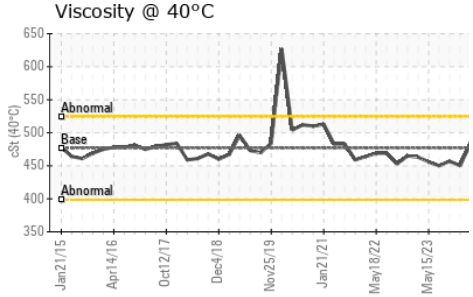
Non-ferrous Metals



Acid Number



Viscosity @ 40°C

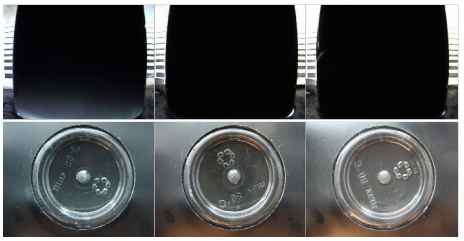


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.38	**0.87**	0.82	0.88

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	**VLITE**	LIGHT	NONE
Debris	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

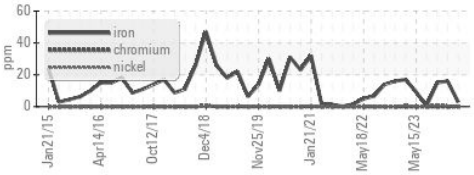
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	477	**484**	450	457

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

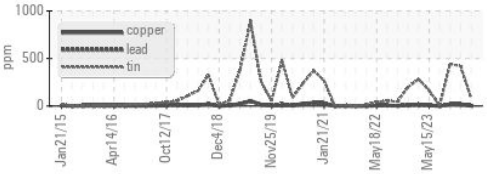


GRAPHS

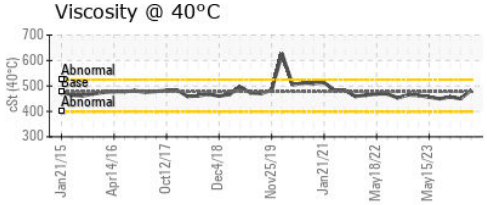
Ferrous Alloys



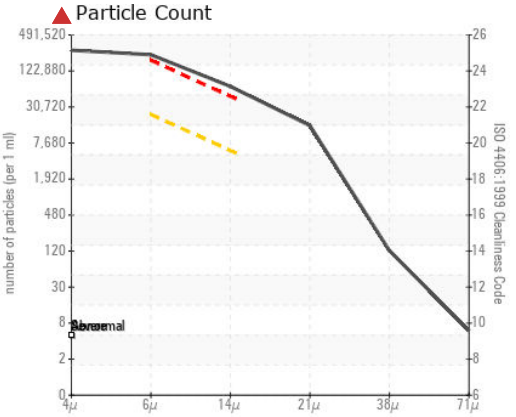
Non-ferrous Metals



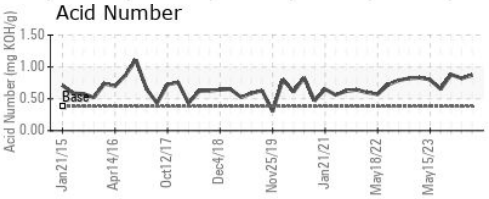
Viscosity @ 40°C



Particle Count



Acid Number



CALA
ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0925352
Lab Number : 02629375
Unique Number : 5762507
Test Package : IND 2 (Additional Tests: TAN Man)

Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 17 Apr 2024 - 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.

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Report Id: STMBOW [WCAMIS] 02629375 (Generated: 04/17/2024 15:16:26) Rev: 1

Submitted By: ?