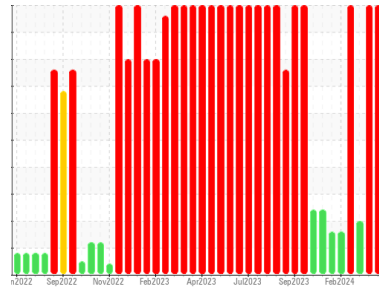




# PROBLEM SUMMARY

## Sample Rating Trend

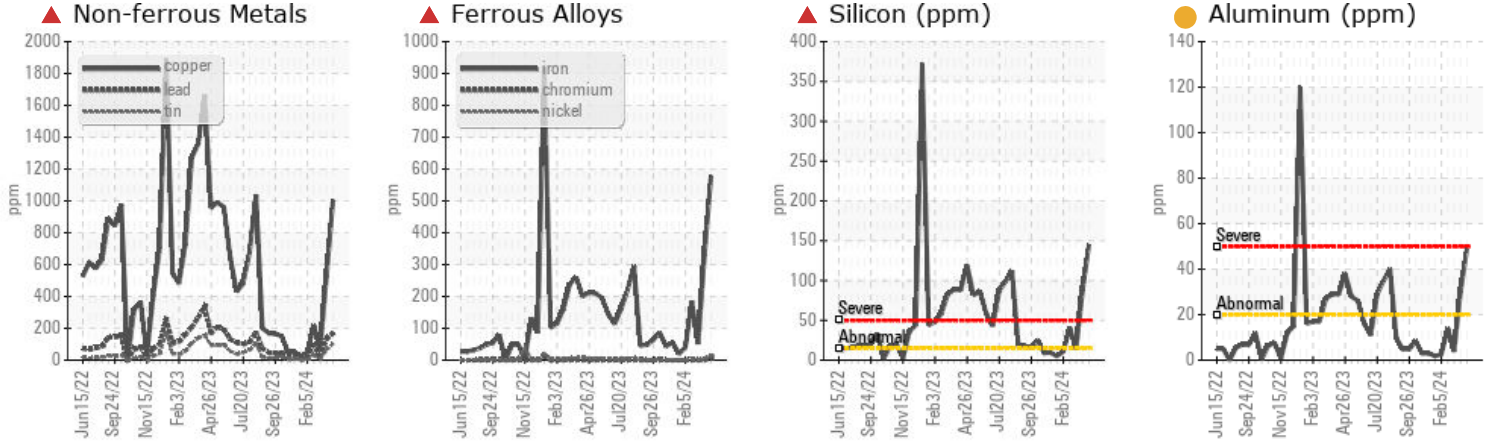


WEAR



Area  
**Building 12**  
 Machine Id  
**Cone 2B**  
 Component  
**Bulk Tank Lube System**  
 Fluid  
**MOBIL MOBILGEAR 600 XP 320 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>20	▲ 578	▲ 330	▲ 52
Lead	ppm	ASTM D5185m	>20	▲ 166	▲ 134	19
Copper	ppm	ASTM D5185m	>20	▲ 1003	▲ 527	▲ 66
Tin	ppm	ASTM D5185m	>20	▲ 101	▲ 65	7
Silicon	ppm	ASTM D5185m	>15	▲ 145	▲ 88	14

Customer Id: THRPIT  
 Sample No.: WC0936870  
 Lab Number: 06177812  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Angela Borella +1 800-237-1369  
[angela.borella@wearcheckusa.com](mailto:angela.borella@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

## HISTORICAL DIAGNOSIS

### WEAR



#### 23 Mar 2024 Diag: Don Baldrige

We advise that you check all areas where dirt can enter the system. The oil filtered at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is a moderate amount of visible silt present in the sample. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid.

view report



### WEAR



#### 06 Mar 2024 Diag: Don Baldrige

No corrective action is recommended at this time. Resample at the next service interval to monitor. Bearing and/or gear wear is indicated. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

view report



### WEAR



#### 05 Mar 2024 Diag: Don Baldrige

We advise that you check all areas where dirt can enter the system. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid.

view report





# OIL ANALYSIS REPORT

Area  
**Building 12**  
 Machine Id  
**Cone 2B**  
 Component  
**Bulk Tank Lube System**  
 Fluid  
**MOBIL MOBILGEAR 600 XP 320 (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

### ▲ Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### ▲ Wear

Gear wear is indicated. Bearing and/or bushing wear is indicated.

### ▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0936870</b>	WC0901938	WC0901929
Sample Date	Client Info		<b>26 Apr 2024</b>	23 Mar 2024	06 Mar 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Filtered</b>	Filtered	Filtered
Sample Status			<b>SEVERE</b>	SEVERE	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>▲ 578</b>	▲ 330	▲ 52
Chromium	ppm	ASTM D5185m >20	<b>5</b>	2	0
Nickel	ppm	ASTM D5185m >20	<b>13</b>	7	0
Titanium	ppm	ASTM D5185m	<b>4</b>	2	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>● 49</b>	● 30	4
Lead	ppm	ASTM D5185m >20	<b>▲ 166</b>	▲ 134	19
Copper	ppm	ASTM D5185m >20	<b>▲ 1003</b>	▲ 527	▲ 66
Tin	ppm	ASTM D5185m >20	<b>▲ 101</b>	▲ 65	7
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>29</b>	19	24
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>2</b>	0	4
Manganese	ppm	ASTM D5185m	<b>5</b>	3	<1
Magnesium	ppm	ASTM D5185m	<b>24</b>	16	2
Calcium	ppm	ASTM D5185m	<b>80</b>	15	1
Phosphorus	ppm	ASTM D5185m	<b>313</b>	277	292
Zinc	ppm	ASTM D5185m	<b>40</b>	4	0
Sulfur	ppm	ASTM D5185m	<b>15953</b>	16813	16962

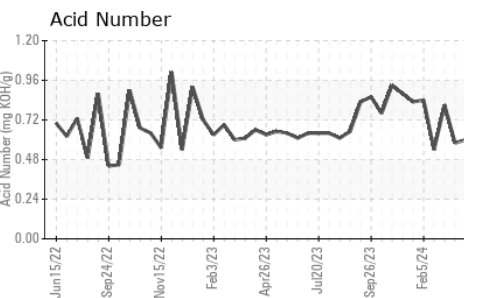
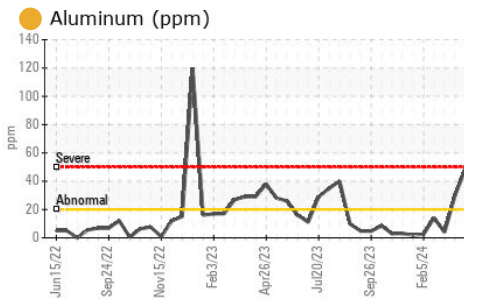
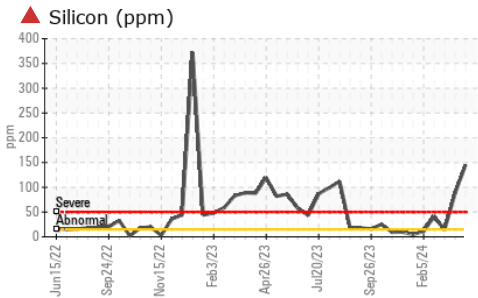
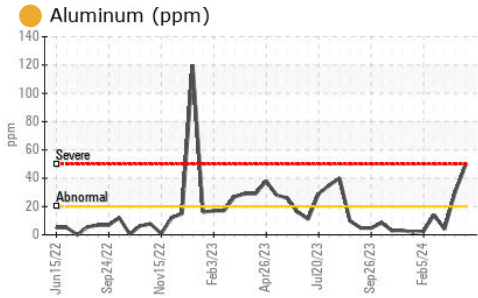
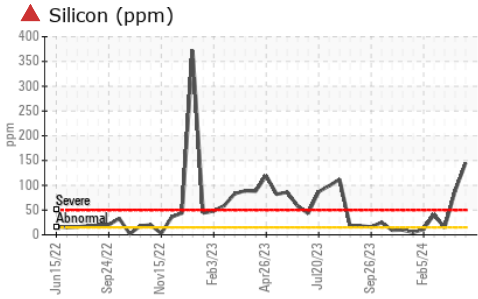
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>▲ 145</b>	▲ 88	14
Sodium	ppm	ASTM D5185m	<b>16</b>	11	2
Potassium	ppm	ASTM D5185m >20	<b>8</b>	3	<1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.60</b>	0.58	0.81

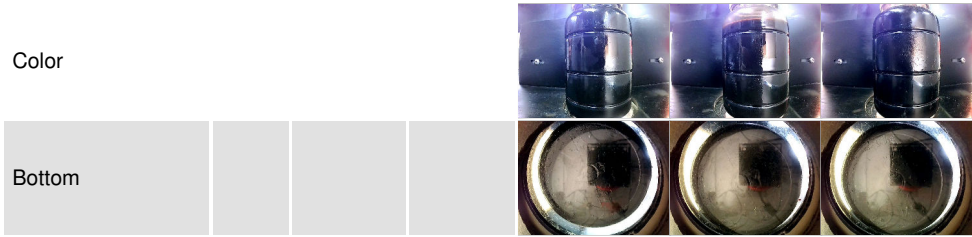
# OIL ANALYSIS REPORT



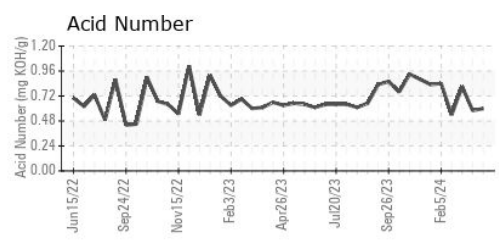
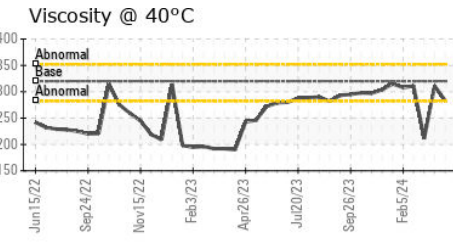
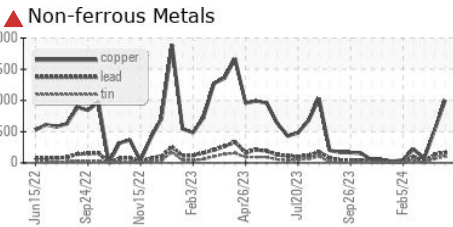
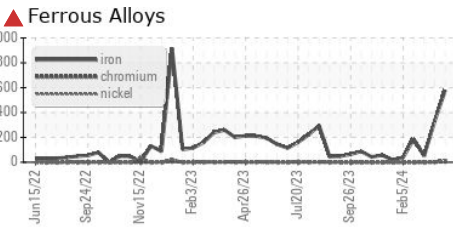
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	283	311

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0936870  
**Lab Number** : 06177812  
**Unique Number** : 11029138  
**Test Package** : IND 2  
**Received** : 13 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 15 May 2024 - Angela Borella

**3M - PITTSBORO**  
 4191 NC 87 S  
 MONCURE, NC  
 US 27559  
 Contact: CHARLES JARRELL  
 cjarrell@mmm.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)