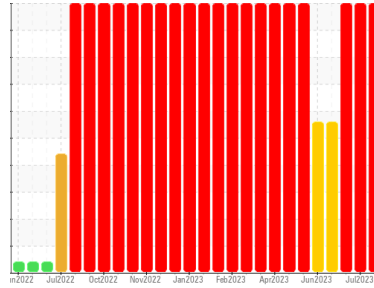




PROBLEM SUMMARY

Sample Rating Trend

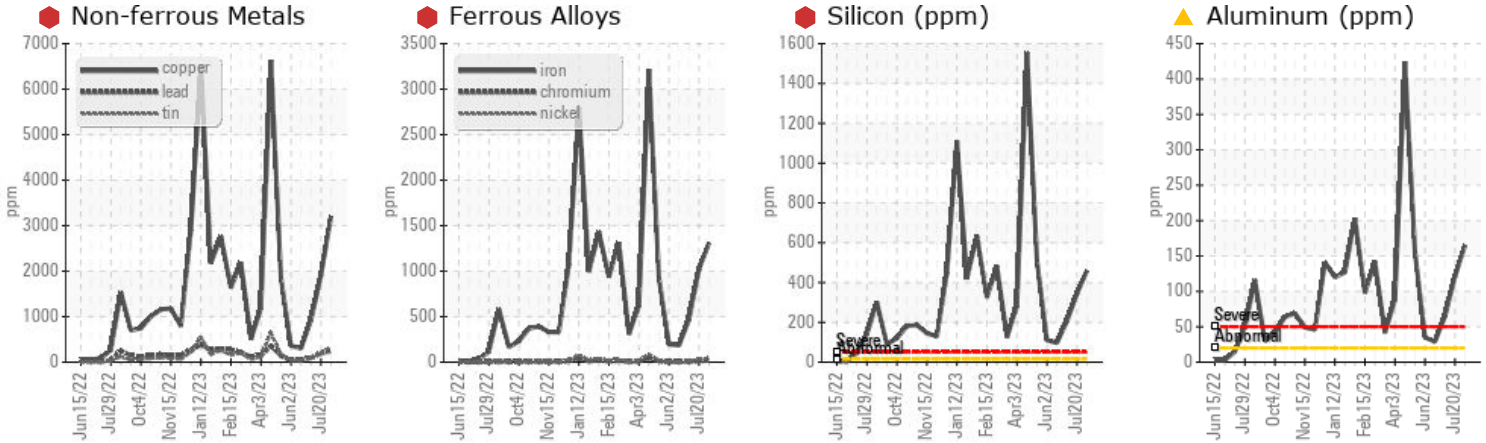


WEAR



Area
Building 12
 Machine Id
Cone 2A
 Component
Bulk Tank Lube System
 Fluid
MOBIL MOBILGEAR 600 XP 320 (105 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt 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. 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	SEVERE
Iron	ppm	ASTM D5185m	>20	1309	1021	467
Nickel	ppm	ASTM D5185m	>20	45	30	13
Aluminum	ppm	ASTM D5185m	>20	165	121	65
Lead	ppm	ASTM D5185m	>20	239	187	94
Copper	ppm	ASTM D5185m	>20	3199	1912	920
Tin	ppm	ASTM D5185m	>20	343	200	94
Silicon	ppm	ASTM D5185m	>15	460	345	206
Silt	scalar	*Visual	NONE	MODER	NONE	NONE

Customer Id: THRPIT
 Sample No.: WC0820050
 Lab Number: 05934416
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	MISSED	Aug 27 2023	?	We advise that you inspect for the source(s) of wear.
Change Filter	MISSED	Aug 27 2023	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	MISSED	Aug 27 2023	?	We recommend an early resample to monitor this condition.
Check Dirt Access	MISSED	Aug 27 2023	?	We advise that you check all areas where dirt can enter the system.
Filter Fluid	MISSED	Aug 27 2023	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

20 Jul 2023 Diag: Don Baldrige

WEAR



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 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. The oil is no longer serviceable due to the presence of contaminants.

view report



03 Jul 2023 Diag: Angela Borella

WEAR



We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Bearing and/or gear 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. The condition of the oil is suitable for further service.

view report



25 Jun 2023 Diag: Angela Borella

DIRT



We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Bearing and/or gear 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. The condition of the oil is suitable for further service.

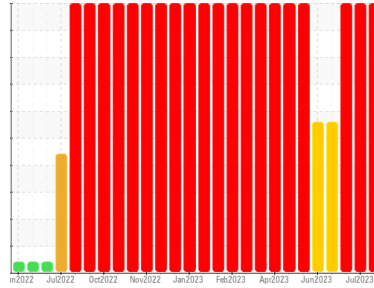
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Area
Building 12
Machine Id
Cone 2A
Component
Bulk Tank Lube System
Fluid
MOBIL MOBILGEAR 600 XP 320 (105 GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt 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. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Generally an abnormal to severe rate of wear throughout the component.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate amount of visible silt present in the sample.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0820050	WC0820070	WC0820047
Sample Date	Client Info		02 Aug 2023	20 Jul 2023	03 Jul 2023
Machine Age	hrs	Client Info	0	735	552
Oil Age	hrs	Client Info	1110	0	640
Oil Changed	Client Info		Not Chngd	N/A	Not Chngd
Sample Status			SEVERE	SEVERE	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	1309	1021	467
Chromium	ppm	ASTM D5185m >20	17	13	5
Nickel	ppm	ASTM D5185m >20	45	30	13
Titanium	ppm	ASTM D5185m	11	9	5
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m >20	165	121	65
Lead	ppm	ASTM D5185m >20	239	187	94
Copper	ppm	ASTM D5185m >20	3199	1912	920
Tin	ppm	ASTM D5185m >20	343	200	94
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	21	19	18
Barium	ppm	ASTM D5185m	0	0	2
Molybdenum	ppm	ASTM D5185m	2	1	<1
Manganese	ppm	ASTM D5185m	11	9	4
Magnesium	ppm	ASTM D5185m	66	51	29
Calcium	ppm	ASTM D5185m	72	55	31
Phosphorus	ppm	ASTM D5185m	255	270	230
Zinc	ppm	ASTM D5185m	19	4	10
Sulfur	ppm	ASTM D5185m	14414	17204	15395

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	460	345	206
Sodium	ppm	ASTM D5185m	56	47	24
Potassium	ppm	ASTM D5185m >20	17	11	8

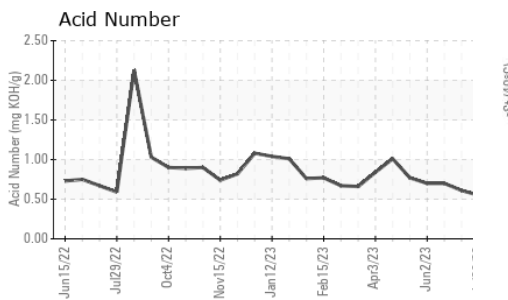
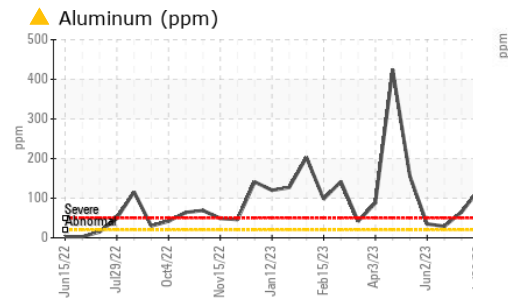
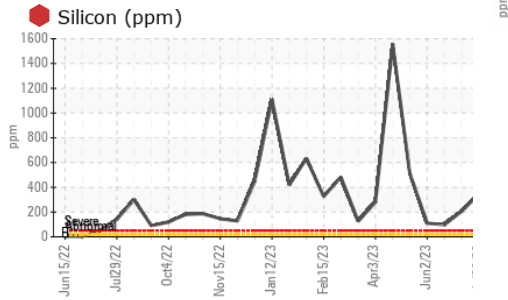
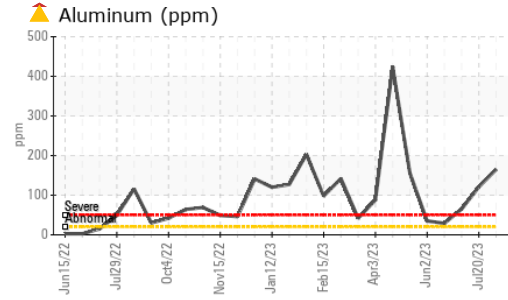
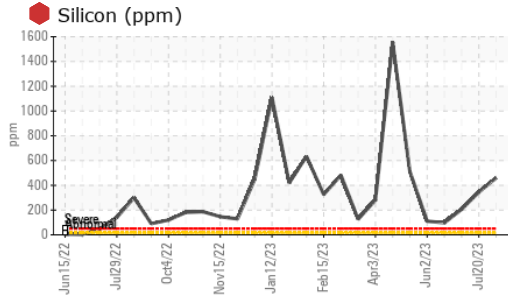
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.54	0.55	0.61

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	MODER	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 >0.05	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

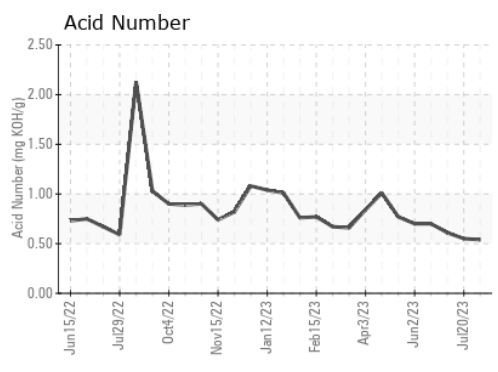
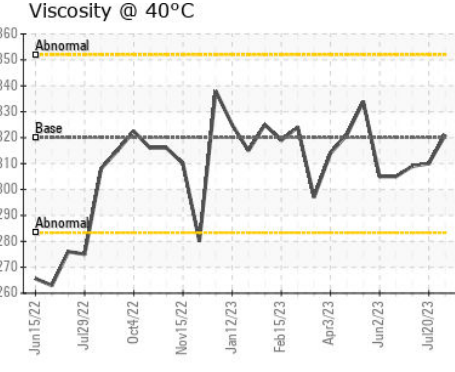
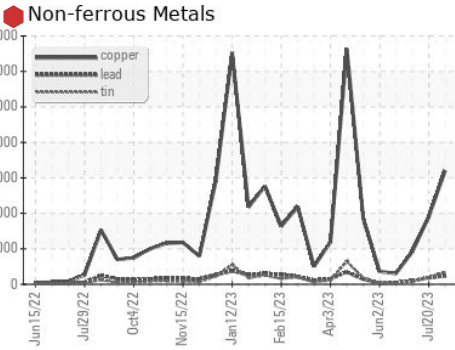
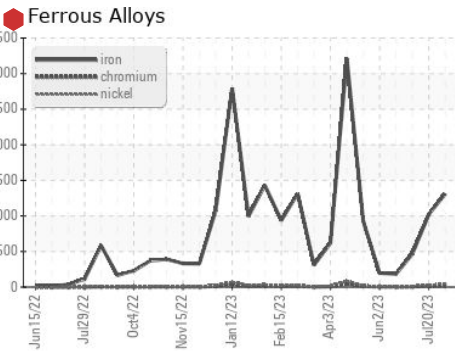
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	321	310	309

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0820050 **Received** : 24 Aug 2023
Lab Number : **05934416** **Diagnosed** : 27 Aug 2023
Unique Number : 10619687 **Diagnostician** : Don Baldrige
Test Package : IND 2

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

Certificate L2367
 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)