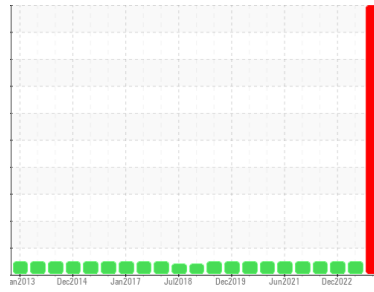




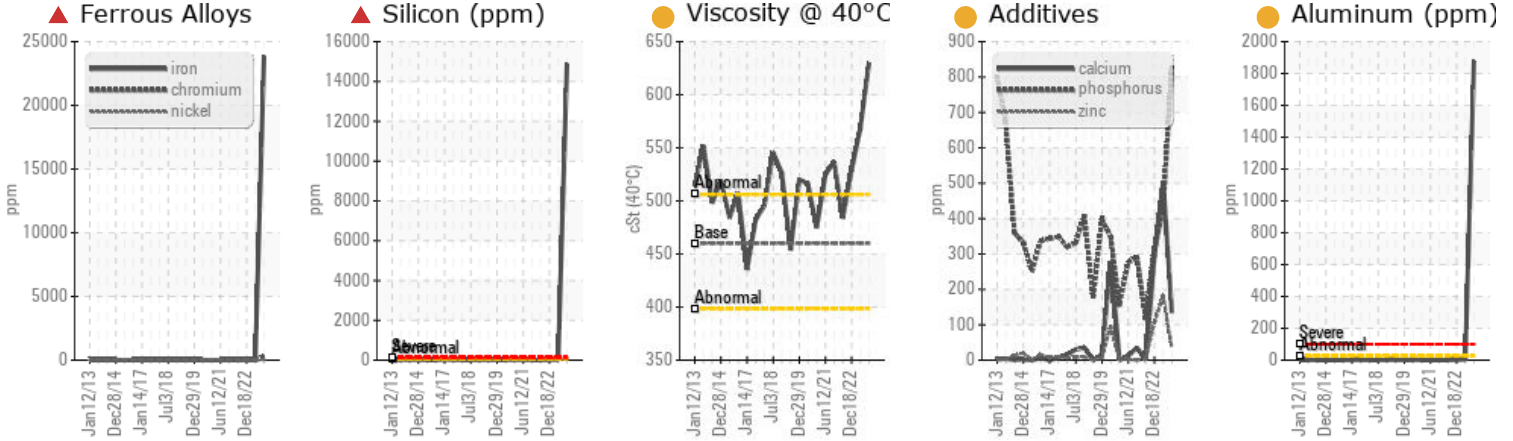
# PROBLEM SUMMARY

Area  
**[604346580 SDR]**  
 Machine Id  
**3 SLATE CONV PRI (S/N 20058866)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 460 (--- GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change 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.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>200	▲ <b>23862</b>	8	5
Chromium	ppm	ASTM D5185m	>15	▲ <b>298</b>	0	0
Nickel	ppm	ASTM D5185m	>15	▲ <b>40</b>	0	0
Silicon	ppm	ASTM D5185m	>50	▲ <b>14876</b>	10	6
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	NONE	NONE

Customer Id: MARSCHI  
 Sample No.: WC0854540  
 Lab Number: 06211896  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@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.
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

NORMAL



**16 Jun 2023 Diag: Don Baldrige**

Resample at the next service interval to monitor. 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



NORMAL



**18 Dec 2022 Diag: Don Baldrige**

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



NORMAL



**23 Jun 2022 Diag: Angela Borella**

Resample at the next service interval to monitor. 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

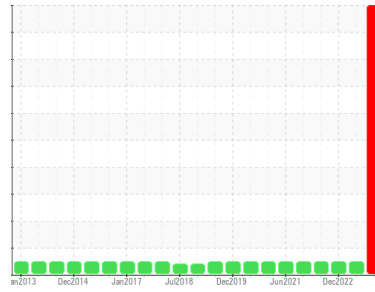




# OIL ANALYSIS REPORT

Area  
**[604346580 SDR]**  
 Machine Id  
**3 SLATE CONV PRI (S/N 20058866)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 460 (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. The oil change 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.

### Wear

Gear wear is indicated.

### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil.

### Fluid Condition

The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. 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		<b>WC0854540</b>	WC0605456	WC0605360
Sample Date	Client Info		<b>07 Jun 2024</b>	16 Jun 2023	18 Dec 2022
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>Changed</b>	Not Changd	Changed
Sample Status			<b>SEVERE</b>	NORMAL	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>▲ 23862</b>	8	5
Chromium	ppm	ASTM D5185m >15	<b>▲ 298</b>	0	0
Nickel	ppm	ASTM D5185m >15	<b>▲ 40</b>	0	0
Titanium	ppm	ASTM D5185m	<b>212</b>	<1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>● 1877</b>	4	<1
Lead	ppm	ASTM D5185m >100	<b>3</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>44</b>	3	2
Tin	ppm	ASTM D5185m >25	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>6</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>● 188</b>	2	0
Barium	ppm	ASTM D5185m 15	<b>5</b>	0	0
Molybdenum	ppm	ASTM D5185m 15	<b>● 41</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>194</b>	0	0
Magnesium	ppm	ASTM D5185m 50	<b>62</b>	3	2
Calcium	ppm	ASTM D5185m 50	<b>● 135</b>	505	295
Phosphorus	ppm	ASTM D5185m 350	<b>● 824</b>	427	309
Zinc	ppm	ASTM D5185m 100	<b>34</b>	184	105
Sulfur	ppm	ASTM D5185m 12500	<b>● 90334</b>	974	1048

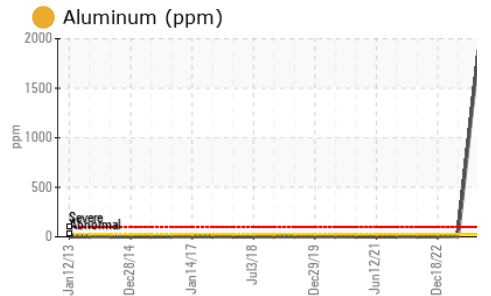
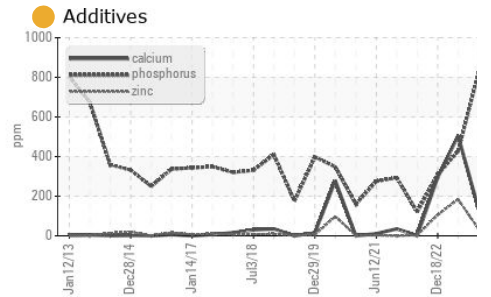
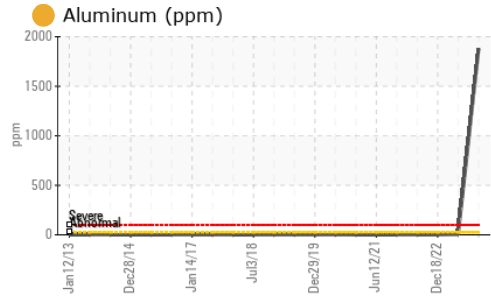
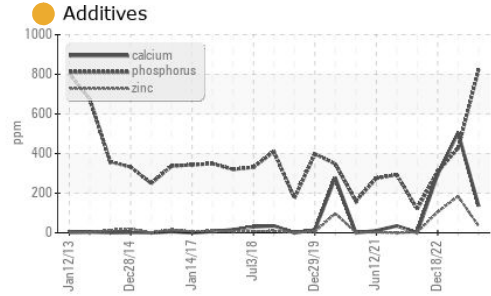
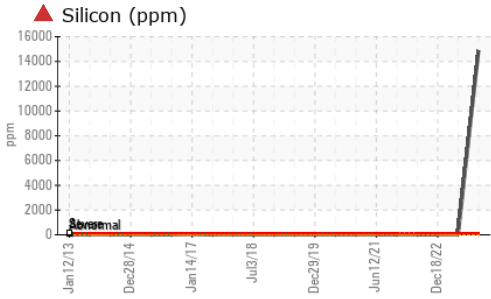
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>▲ 14876</b>	10	6
Sodium	ppm	ASTM D5185m	<b>104</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>384</b>	2	<1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	<b>1.27</b>	0.45	0.48

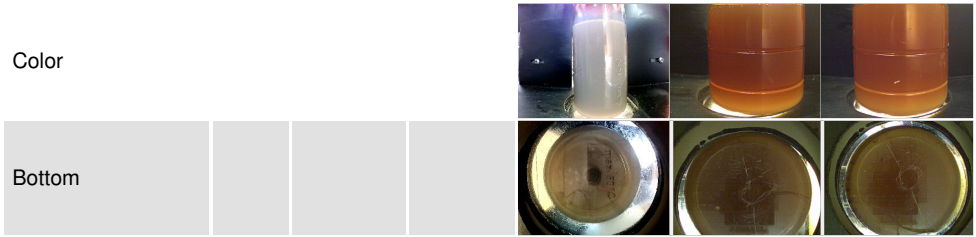
# OIL ANALYSIS REPORT



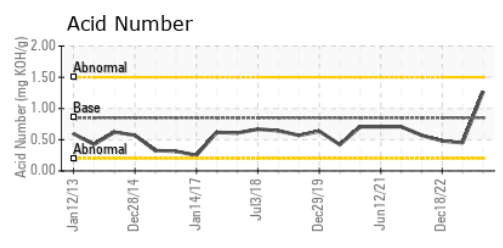
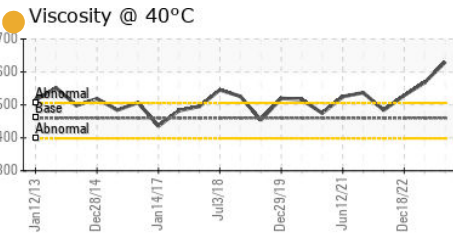
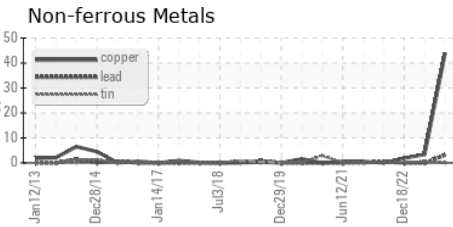
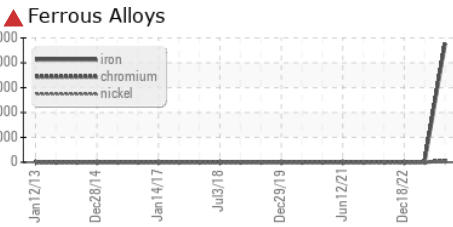
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	● HAZY	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	460 ● 630	568	529

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0854540      **Received** : 17 Jun 2024  
**Lab Number** : 06211896      **Tested** : 20 Jun 2024  
**Unique Number** : 11084760      **Diagnosed** : 20 Jun 2024 - Jonathan Hester  
**Test Package** : IND 2

**MARS CHOCOLATE**  
 2019 NORTH OAK PARK  
 CHICAGO, IL  
 US 60707  
 Contact: TONY FIORE  
 tony.fiore@effem.com  
 T: (773)745-2279  
 F:

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)