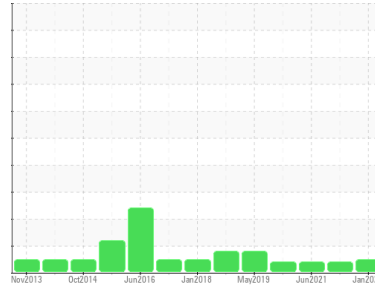




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**[604227397 SR]**  
 Machine Id  
**FRISSA 3 MD (S/N 20060479)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 460 (--- GAL)**

## DIAGNOSIS

- Recommendation**  
Resample at the next service interval to monitor.
- Wear**  
All component wear rates are normal.
- Contamination**  
There is no indication of any contamination in the oil.
- Fluid Condition**  
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		<b>WC0854117</b>	WC0562278	WC0562179
Sample Date	Client Info		<b>11 Jan 2024</b>	23 Sep 2021	13 Jun 2021
Machine Age	mls	Client Info	<b>0</b>	0	0
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changd	Not Changed
Sample Status			<b>NORMAL</b>	ATTENTION	ATTENTION

## 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>12</b>	61	46
Chromium	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >15	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	3	4
Lead	ppm	ASTM D5185m >100	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >200	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m >25	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m >5	<b>---</b>	13	14
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>0</b>	<1	2
Barium	ppm	ASTM D5185m 15	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m 15	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 50	<b>5</b>	18	19
Calcium	ppm	ASTM D5185m 50	<b>1018</b>	3596	3354
Phosphorus	ppm	ASTM D5185m 350	<b>182</b>	288	304
Zinc	ppm	ASTM D5185m 100	<b>212</b>	910	847
Sulfur	ppm	ASTM D5185m 12500	<b>2067</b>	1917	1808

## CONTAMINANTS

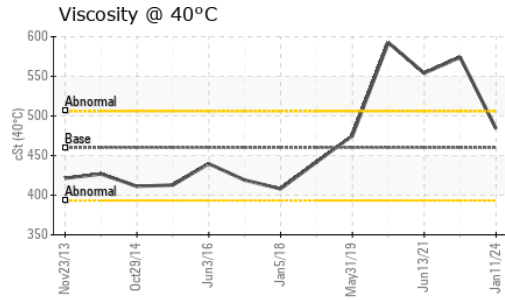
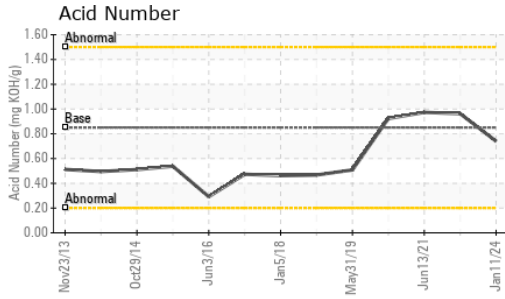
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>5</b>	18	16
Sodium	ppm	ASTM D5185m	<b>6</b>	20	18
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	<1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	<b>0.74</b>	0.962	0.973



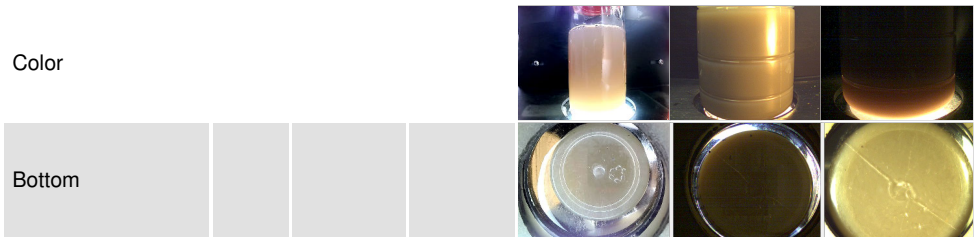
# OIL ANALYSIS REPORT



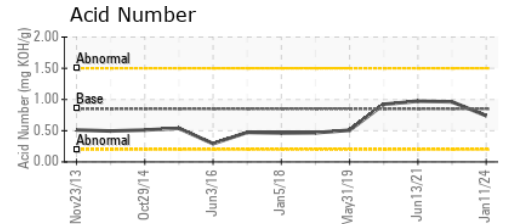
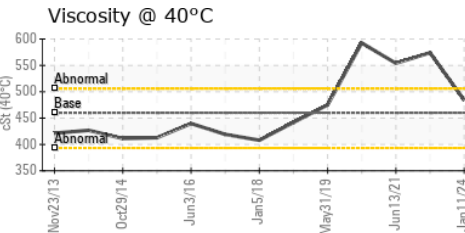
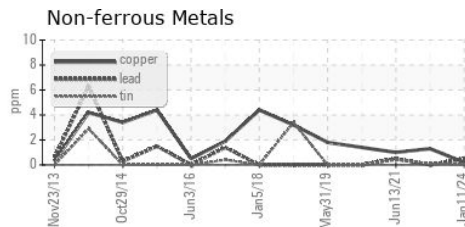
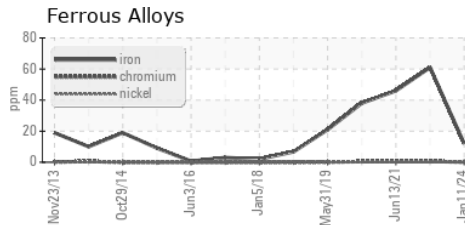
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	460	484	574

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



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0854117  
 Lab Number : 06064444  
 Unique Number : 10835826  
 Test Package : IND 2  
 Recieved : 18 Jan 2024  
 Diagnosed : 21 Jan 2024  
 Diagnostician : Don Baldrige

**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)