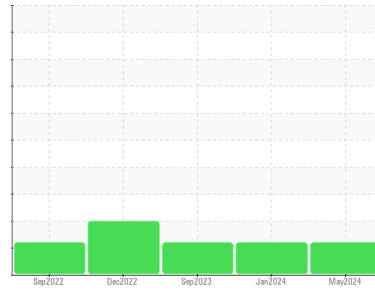




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**WALPOLE**  
 Machine Id  
**945 - WALPOLE**  
 Component  
**Rear Differential**  
 Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present 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>WC0934502</b>	WC0900921	WC0853881
Sample Date	Client Info		<b>03 May 2024</b>	12 Jan 2024	22 Sep 2023
Machine Age	mls	Client Info	<b>190042</b>	154596	117188
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	<b>185</b>	179	149
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	3	3
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	5	3
Lead	ppm	ASTM D5185m	>25	<b>0</b>	2	0
Copper	ppm	ASTM D5185m	>100	<b>2</b>	3	1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>68</b>	63	58
Barium	ppm	ASTM D5185m		<b>1</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>12</b>	13	10
Magnesium	ppm	ASTM D5185m		<b>201</b>	199	194
Calcium	ppm	ASTM D5185m		<b>11</b>	11	8
Phosphorus	ppm	ASTM D5185m		<b>1788</b>	1700	1660
Zinc	ppm	ASTM D5185m		<b>16</b>	17	7
Sulfur	ppm	ASTM D5185m		<b>29925</b>	23567	23588

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>75	<b>43</b>	42	41
Sodium	ppm	ASTM D5185m		<b>4</b>	5	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	0
Water	%	ASTM D6304	>.2	<b>0.039</b>	0.043	0.023
ppm Water	ppm	ASTM D6304	>2000	<b>399</b>	431	232.8

## FLUID CLEANLINESS

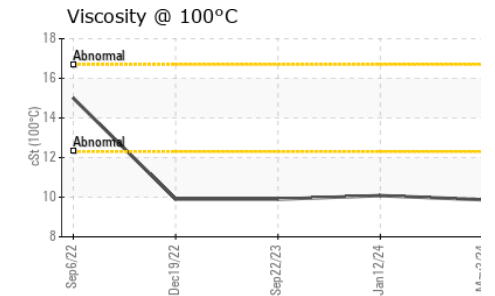
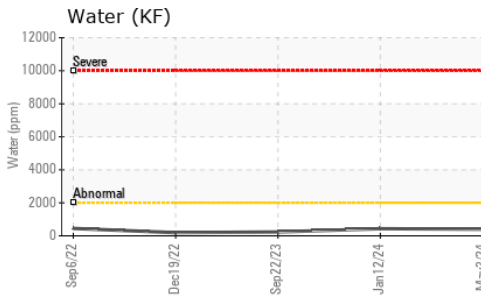
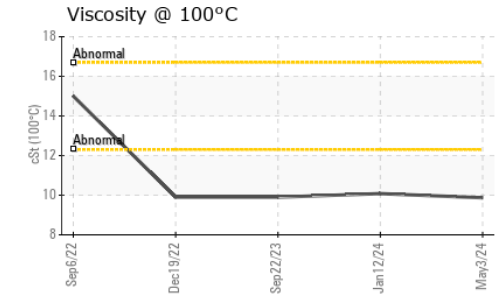
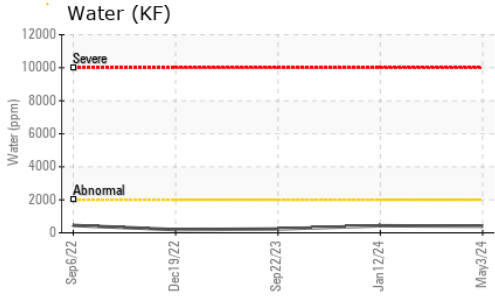
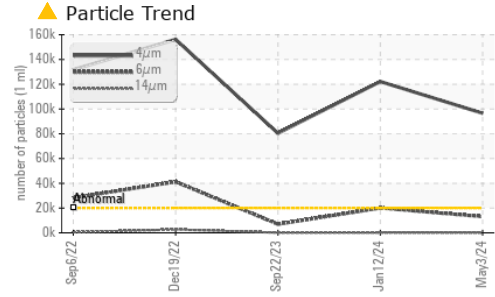
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ <b>96553</b>	▲ 122171	▲ 80425
Particles >6µm	ASTM D7647	>5000	▲ <b>13059</b>	▲ 20097	● 6997
Particles >14µm	ASTM D7647	>640	<b>122</b>	185	100
Particles >21µm	ASTM D7647	>160	<b>16</b>	49	24
Particles >38µm	ASTM D7647	>40	<b>2</b>	2	2
Particles >71µm	ASTM D7647	>10	<b>2</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>24/21/14</b>	▲ 24/22/15	▲ 24/20/14

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.40</b>	0.46	0.58



# OIL ANALYSIS REPORT

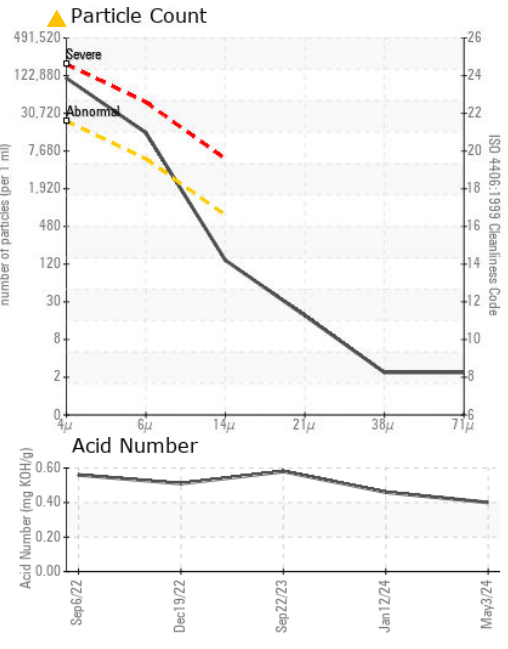
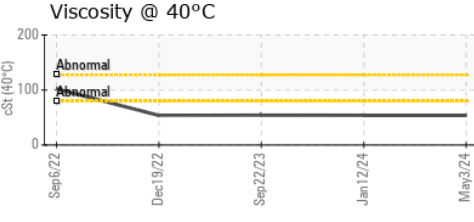
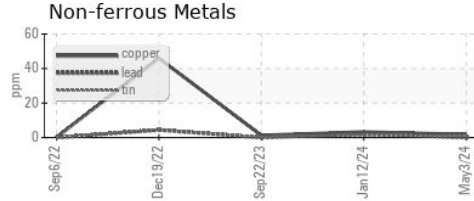
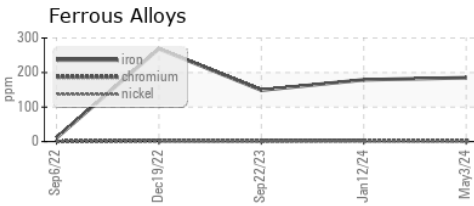


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	54.0	54.0	54.2
Visc @ 100°C	cSt	ASTM D445	9.87	10.08	9.9
Viscosity Index (VI)	Scale	ASTM D2270	171	176	171

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0934502      **Received** : 14 May 2024  
**Lab Number** : 06179411      **Tested** : 20 May 2024  
**Unique Number** : 11030737      **Diagnosed** : 21 May 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**BASF - GIANNA CREDAROLI**  
 500 WHITE PLAINS RD  
 TARRYTOWN, NY  
 US 10591  
 Contact: GIANNA CREDAROLI  
 gianna.credaroli@basf.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)