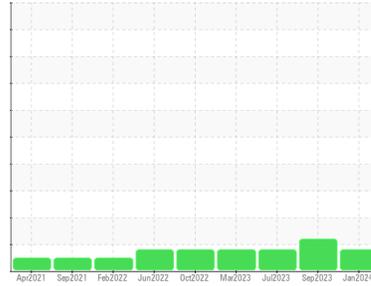




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**DICK LAVY**  
 Machine Id  
**DICK LAVY 4831**  
 Component  
**Rear Differential**  
 Fluid  
**Differential Oil (--- 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>WC0900825</b>	WC0853911	WC0843225
Sample Date	Client Info		<b>10 Jan 2024</b>	24 Sep 2023	19 Jul 2023
Machine Age	mls	Client Info	<b>413786</b>	375533	349288
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>166</b>	214	150
Chromium	ppm	ASTM D5185m >10	<b>1</b>	2	1
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>3</b>	2	3
Lead	ppm	ASTM D5185m >25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >100	<b>2</b>	2	2
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>90</b>	75	104
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>8</b>	11	8
Magnesium	ppm	ASTM D5185m	<b>147</b>	144	156
Calcium	ppm	ASTM D5185m	<b>11</b>	9	5
Phosphorus	ppm	ASTM D5185m	<b>1695</b>	1569	1591
Zinc	ppm	ASTM D5185m	<b>5</b>	0	4
Sulfur	ppm	ASTM D5185m	<b>27093</b>	21683	25056

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>34</b>	41	28
Sodium	ppm	ASTM D5185m	<b>5</b>	3	5
Potassium	ppm	ASTM D5185m >20	<b>4</b>	<1	4
Water	%	ASTM D6304 >.2	<b>0.032</b>	0.032	0.068
ppm Water	ppm	ASTM D6304 >2000	<b>329</b>	329.2	689.1

## FLUID CLEANLINESS

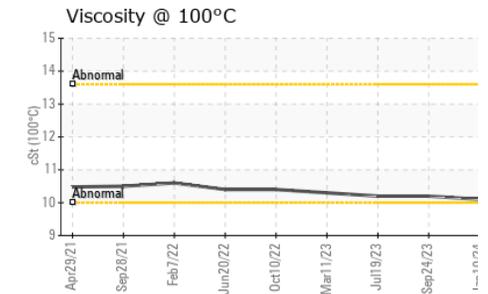
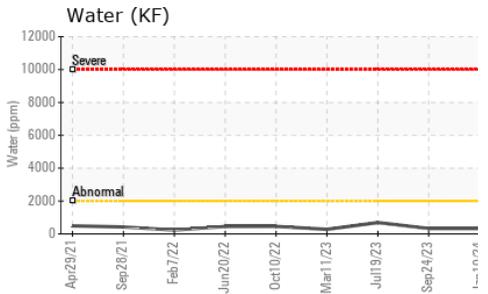
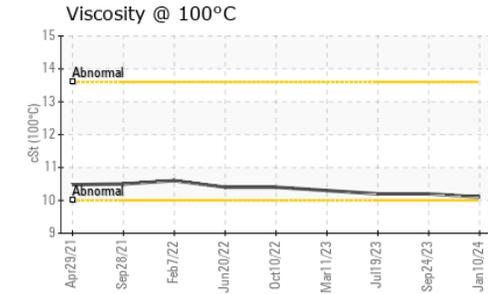
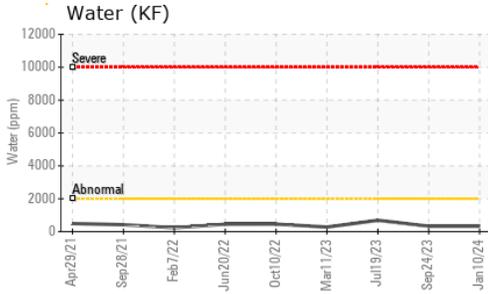
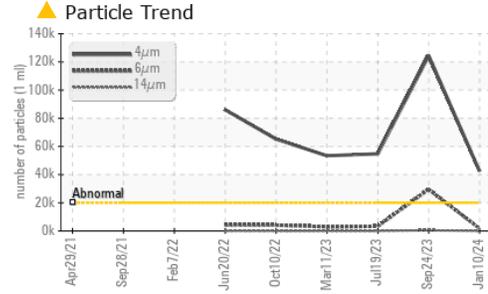
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 42457</b>	▲ 124444	▲ 54777
Particles >6µm	ASTM D7647	>5000	<b>1752</b>	▲ 29544	3334
Particles >14µm	ASTM D7647	>640	<b>19</b>	488	61
Particles >21µm	ASTM D7647	>160	<b>3</b>	72	12
Particles >38µm	ASTM D7647	>40	<b>0</b>	1	1
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 23/18/11</b>	▲ 24/22/16	▲ 23/19/13

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.93</b>	1.00	0.92



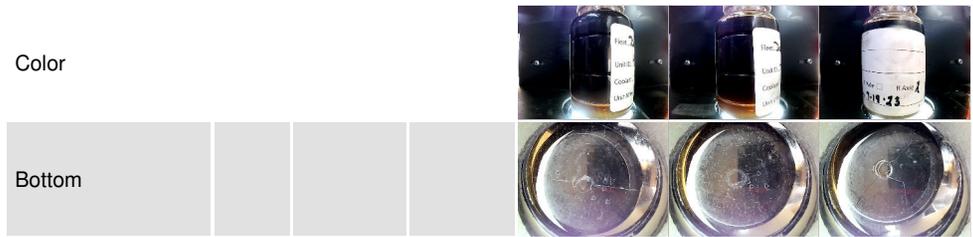
# OIL ANALYSIS REPORT



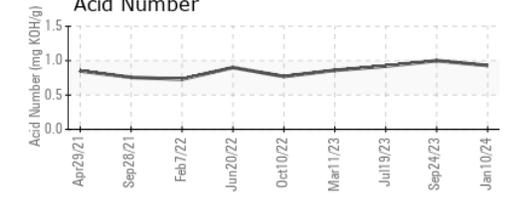
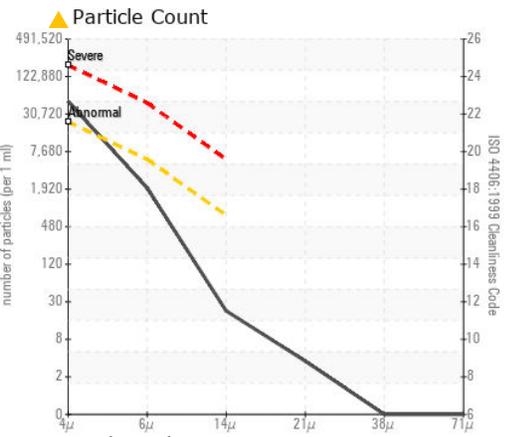
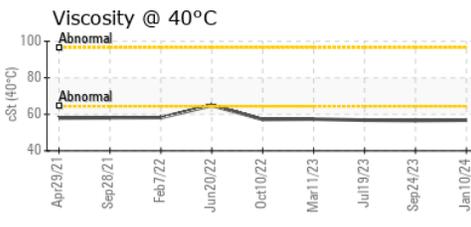
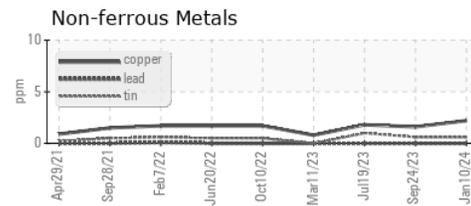
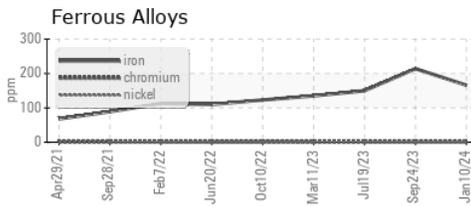
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	56.8	56.6	56.8
Visc @ 100°C	cSt	ASTM D445	10.1	10.2	10.2
Viscosity Index (VI)	Scale	ASTM D2270	166	170	169

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0900825 **Received** : 02 Apr 2024  
**Lab Number** : 06136376 **Tested** : 03 Apr 2024  
**Unique Number** : 10955841 **Diagnosed** : 04 Apr 2024 - Don Baldrige  
**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)