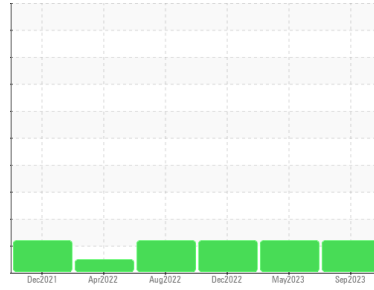




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**DICK LAVY**  
 Machine Id  
**DICK LAVY 4855**  
 Component  
**Rear Differential**  
 Fluid  
**GEAR OIL SAE 75W90 (--- 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 fluid.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0853915</b>	WC0828539	WC0765833
Sample Date	Client Info		<b>22 Sep 2023</b>	11 May 2023	15 Dec 2022
Machine Age	mls	Client Info	<b>261888</b>	208344	153059
Oil Age	mls	Client Info	<b>0</b>	208344	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>194</b>	172	159
Chromium	ppm	ASTM D5185m >10	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	3	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	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>147</b>	138	176
Barium	ppm	ASTM D5185m 200	<b>&lt;1</b>	<1	1
Molybdenum	ppm	ASTM D5185m 12	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m	<b>15</b>	14	14
Magnesium	ppm	ASTM D5185m 12	<b>8</b>	8	6
Calcium	ppm	ASTM D5185m 150	<b>23</b>	22	23
Phosphorus	ppm	ASTM D5185m 1650	<b>1048</b>	1076	1058
Zinc	ppm	ASTM D5185m 125	<b>11</b>	17	19
Sulfur	ppm	ASTM D5185m 22500	<b>22167</b>	29380	27729

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>37</b>	24	24
Sodium	ppm	ASTM D5185m	<b>4</b>	3	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	3	1
Water	%	ASTM D6304 >.2	<b>0.031</b>	0.025	0.023
ppm Water	ppm	ASTM D6304 >2000	<b>310.4</b>	251.1	231.8

## FLUID CLEANLINESS

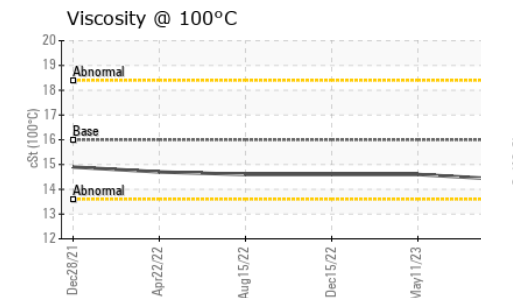
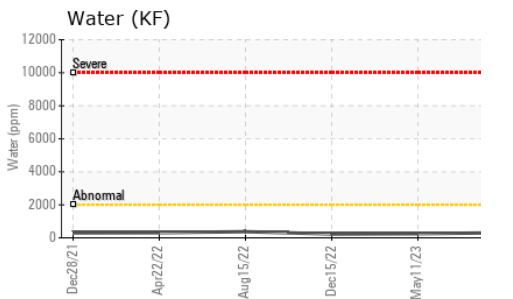
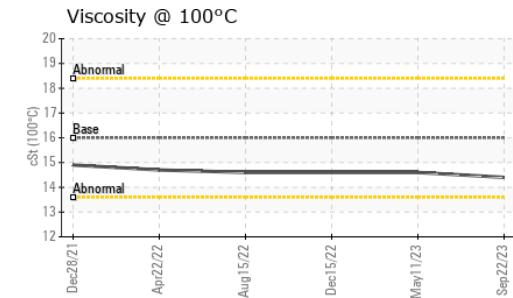
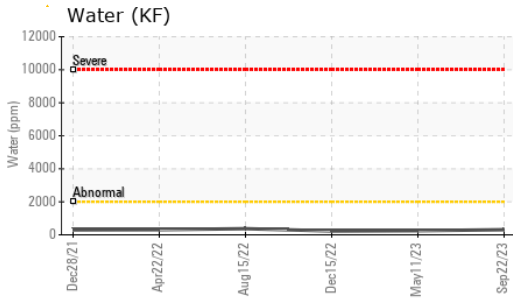
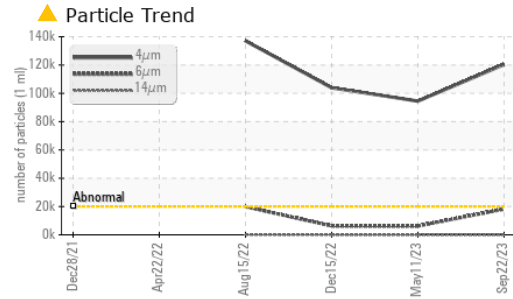
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ <b>120397</b>	▲ 94485	▲ 103902
Particles >6µm	ASTM D7647	>5000	▲ <b>18192</b>	▲ 6209	▲ 6321
Particles >14µm	ASTM D7647	>640	<b>25</b>	16	25
Particles >21µm	ASTM D7647	>160	<b>8</b>	4	2
Particles >38µm	ASTM D7647	>40	<b>1</b>	1	0
Particles >71µm	ASTM D7647	>10	<b>1</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>24/21/12</b>	▲ 24/20/11	▲ 24/20/12

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	<b>2.79</b>	2.63	3.00



# 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	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	109	96.3	96.0
Visc @ 100°C	cSt	ASTM D445	16.0	14.6	14.6
Viscosity Index (VI)	Scale	ASTM D2270	157	157	158

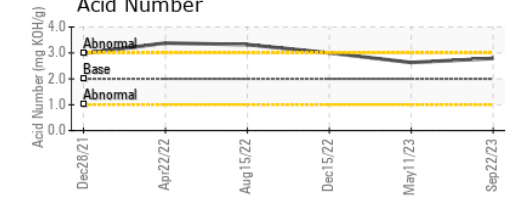
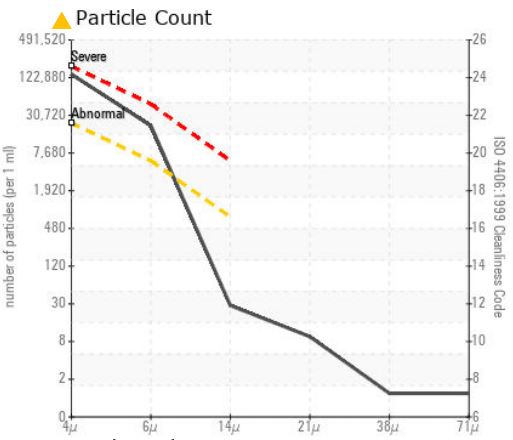
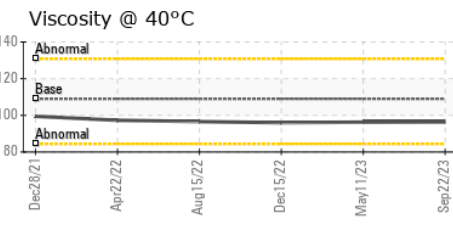
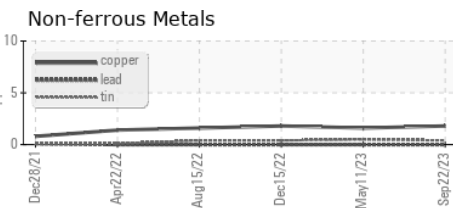
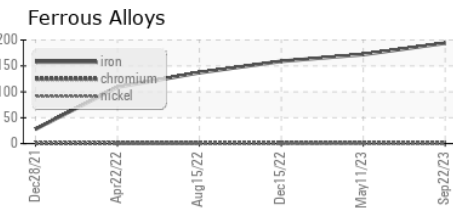
SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

Bottom



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0853915 **Received** : 13 Oct 2023  
**Lab Number** : 05978922 **Diagnosed** : 17 Oct 2023  
**Unique Number** : 10696217 **Diagnostician** : 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)

T:  
F: