



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**METRO**  
 Machine Id  
**METRO 28002**  
 Component  
**Rear Differential**  
 Fluid  
**NOT GIVEN (--- 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. No other contaminants were detected in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0843129</b>	---	---
Sample Date	Client Info	<b>06 Oct 2023</b>	---	---
Machine Age	mls Client Info	<b>110546</b>	---	---
Oil Age	mls Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >500	<b>295</b>	---	---
Chromium ppm	ASTM D5185m >10	<b>1</b>	---	---
Nickel ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Titanium ppm	ASTM D5185m	<b>0</b>	---	---
Silver ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum ppm	ASTM D5185m >25	<b>2</b>	---	---
Lead ppm	ASTM D5185m >25	<b>0</b>	---	---
Copper ppm	ASTM D5185m >100	<b>1</b>	---	---
Tin ppm	ASTM D5185m >10	<b>0</b>	---	---
Vanadium ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	<b>439</b>	---	---
Barium ppm	ASTM D5185m	<b>4</b>	---	---
Molybdenum ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Manganese ppm	ASTM D5185m	<b>6</b>	---	---
Magnesium ppm	ASTM D5185m	<b>4</b>	---	---
Calcium ppm	ASTM D5185m	<b>19</b>	---	---
Phosphorus ppm	ASTM D5185m	<b>2004</b>	---	---
Zinc ppm	ASTM D5185m	<b>16</b>	---	---
Sulfur ppm	ASTM D5185m	<b>23003</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >75	<b>59</b>	---	---
Sodium ppm	ASTM D5185m	<b>9</b>	---	---
Potassium ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Water %	ASTM D6304 >.2	<b>0.065</b>	---	---
ppm Water ppm	ASTM D6304 >2000	<b>653.3</b>	---	---

## FLUID CLEANLINESS

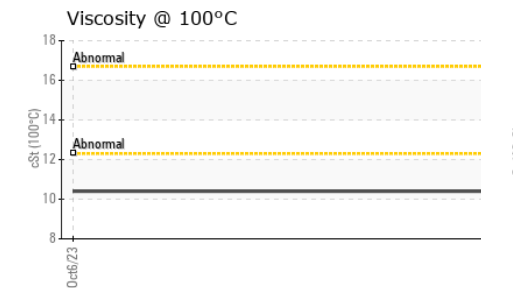
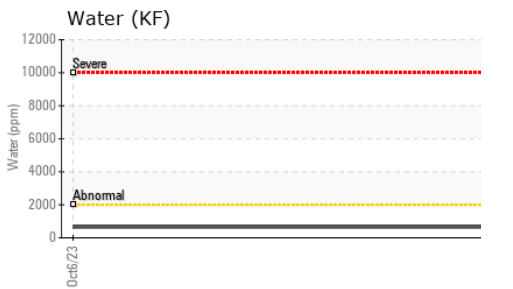
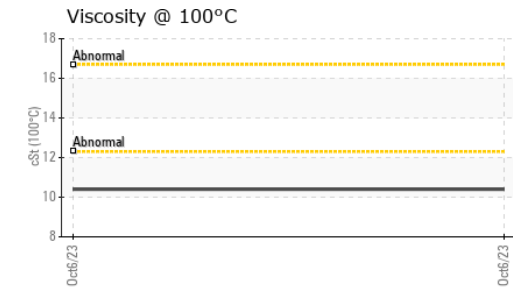
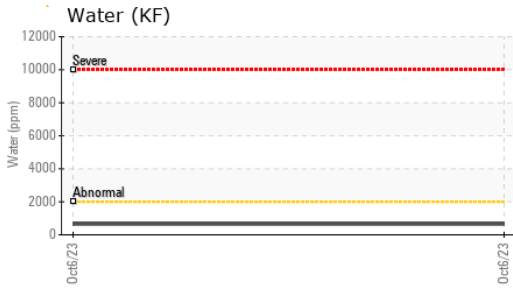
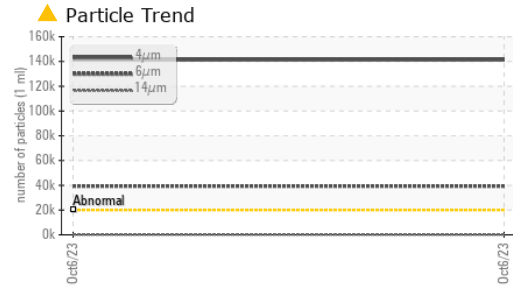
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	▲ <b>141308</b>	---	---
Particles >6µm	ASTM D7647 >5000	▲ <b>39330</b>	---	---
Particles >14µm	ASTM D7647 >640	<b>240</b>	---	---
Particles >21µm	ASTM D7647 >160	<b>20</b>	---	---
Particles >38µm	ASTM D7647 >40	<b>1</b>	---	---
Particles >71µm	ASTM D7647 >10	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ <b>24/22/15</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045	<b>3.35</b>	---	---



# OIL ANALYSIS REPORT

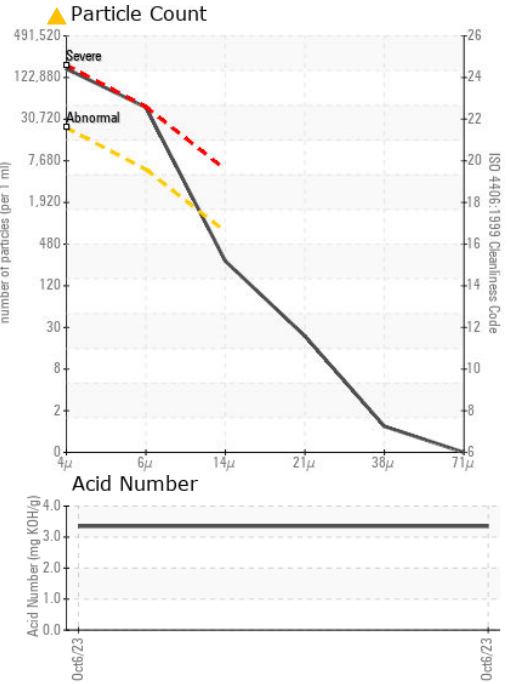
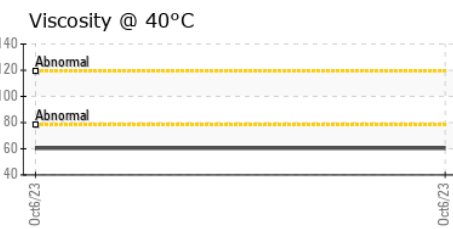
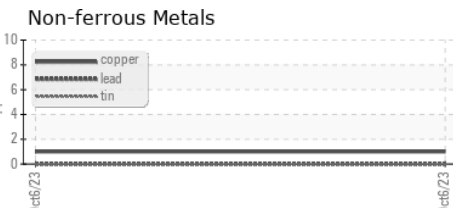
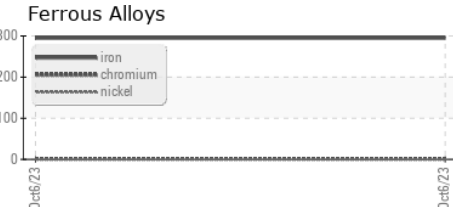


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	60.4	---	---
Visc @ 100°C	cSt	ASTM D445	10.4	---	---
Viscosity Index (VI)	Scale	ASTM D2270	162	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0843129 Received : 14 Nov 2023  
 Lab Number : 06007685 Diagnosed : 16 Nov 2023  
 Unique Number : 10741447 Diagnostician : 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)

T:  
F: