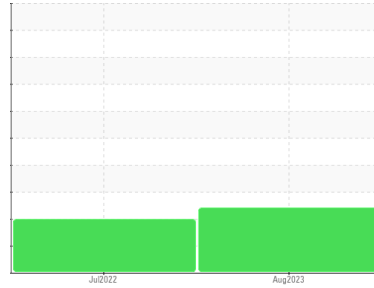




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**MET EXPRESS**  
 Machine Id  
**MET EXPRESS 23004**  
 Component  
**Transmission (Manual)**  
 Fluid  
**GEAR OIL SAE 80 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

The aluminum level is abnormal. All other component wear rates are normal.

### Contamination

There is a high amount of particulates 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>WC0843172</b>	WC0728397	---
Sample Date	Client Info		<b>09 Aug 2023</b>	28 Jul 2022	---
Machine Age	mls	Client Info	<b>98161</b>	8	---
Oil Age	mls	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>66</b>	3	---
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >7	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m >25	<b>▲ 79</b>	0	---
Lead	ppm	ASTM D5185m >45	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >225	<b>11</b>	<1	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>0</b>	2	---
Barium	ppm	ASTM D5185m 200	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 12	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m	<b>3</b>	<1	---
Magnesium	ppm	ASTM D5185m 12	<b>&lt;1</b>	0	---
Calcium	ppm	ASTM D5185m 150	<b>69</b>	61	---
Phosphorus	ppm	ASTM D5185m 1650	<b>919</b>	854	---
Zinc	ppm	ASTM D5185m 125	<b>3</b>	0	---
Sulfur	ppm	ASTM D5185m 22500	<b>13006</b>	10940	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >125	<b>18</b>	2	---
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	---
Water	%	ASTM D6304 >0.1	<b>0.009</b>	0.098	---
ppm Water	ppm	ASTM D6304 >1000	<b>95.4</b>	987.8	---

## FLUID CLEANLINESS

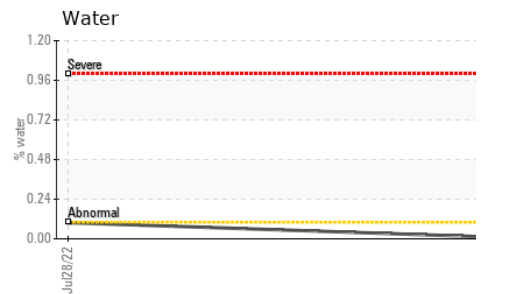
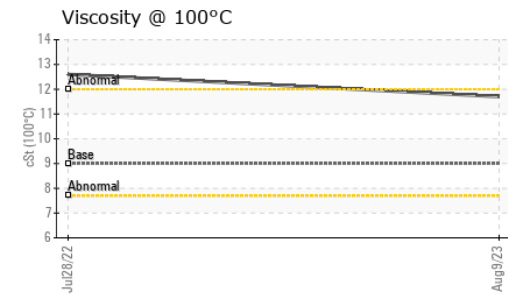
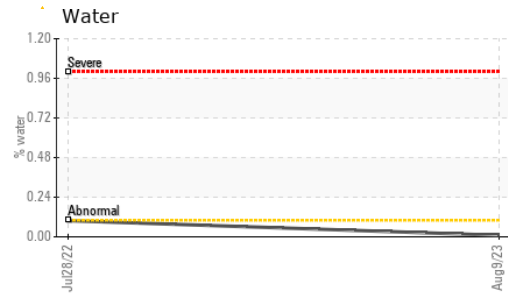
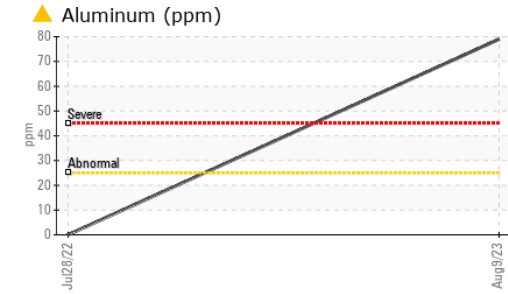
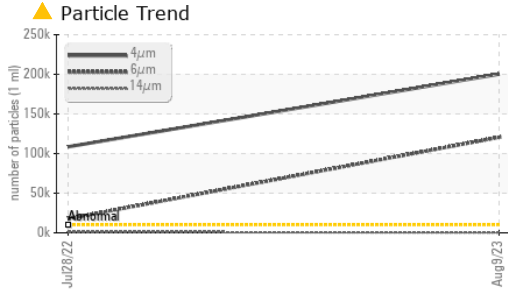
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>▲ 200245</b>	▲ 108552	---
Particles >6µm	ASTM D7647	>2500	<b>▲ 120586</b>	▲ 17700	---
Particles >14µm	ASTM D7647	>320	<b>▲ 453</b>	▲ 897	---
Particles >21µm	ASTM D7647	>80	<b>75</b>	▲ 225	---
Particles >38µm	ASTM D7647	>20	<b>3</b>	7	---
Particles >71µm	ASTM D7647	>4	<b>0</b>	1	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>▲ 25/24/16</b>	▲ 24/21/17	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	<b>1.25</b>	1.56	---



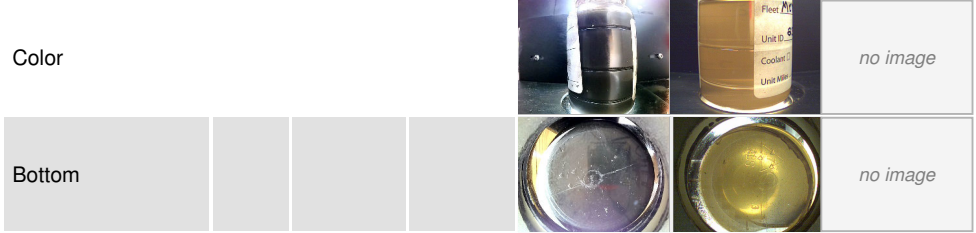
# OIL ANALYSIS REPORT



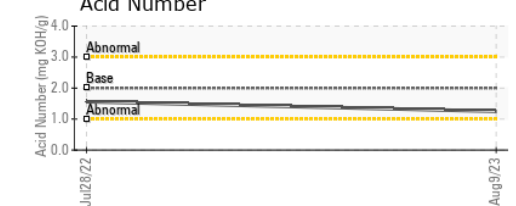
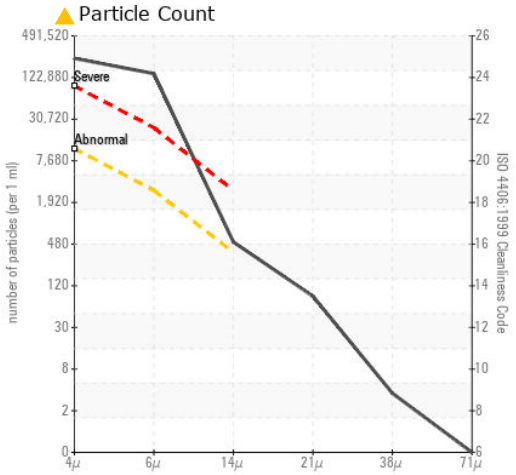
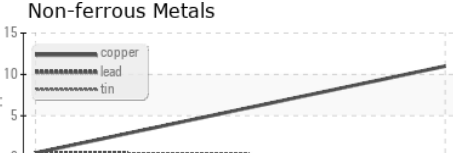
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	74	69.9	73.9
Visc @ 100°C	cSt	ASTM D445	9.0	11.7	12.6
Viscosity Index (VI)	Scale	ASTM D2270	94	163	170

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0843172 **Received** : 22 Aug 2023  
**Lab Number** : 05931521 **Diagnosed** : 24 Aug 2023  
**Unique Number** : 10616792 **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)