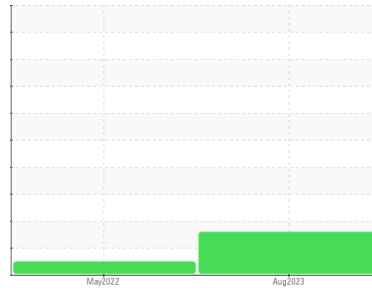




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
METRO
 Machine Id
METRO 23011
 Component
Front Differential
 Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

▲ Recommendation

Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory elemental data.

▲ Wear

Gear wear is indicated.

▲ Contamination

There is a high amount of silt (particulates < 6 microns in size) present 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		WC0843201	WC0692962	---
Sample Date	Client Info		20 Aug 2023	17 May 2022	---
Machine Age	mls	Client Info	146196	2327	---
Oil Age	mls	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ABNORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	▲ 544	14	---
Chromium	ppm	ASTM D5185m >10	4	<1	---
Nickel	ppm	ASTM D5185m >10	4	0	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m	0	7	---
Aluminum	ppm	ASTM D5185m >25	4	<1	---
Lead	ppm	ASTM D5185m >25	0	<1	---
Copper	ppm	ASTM D5185m >100	1	<1	---
Tin	ppm	ASTM D5185m >10	0	0	---
Vanadium	ppm	ASTM D5185m	<1	0	---
Cadmium	ppm	ASTM D5185m	0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	287	369	---
Barium	ppm	ASTM D5185m	27	2	---
Molybdenum	ppm	ASTM D5185m	1	3	---
Manganese	ppm	ASTM D5185m	10	1	---
Magnesium	ppm	ASTM D5185m	12	1	---
Calcium	ppm	ASTM D5185m	6	6	---
Phosphorus	ppm	ASTM D5185m	1613	1587	---
Zinc	ppm	ASTM D5185m	32	5	---
Sulfur	ppm	ASTM D5185m	25056	25465	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	53	7	---
Sodium	ppm	ASTM D5185m	4	0	---
Potassium	ppm	ASTM D5185m >20	<1	<1	---
Water	%	ASTM D6304 >.2	0.054	0.063	---
ppm Water	ppm	ASTM D6304 >2000	543.1	632.2	---

FLUID CLEANLINESS

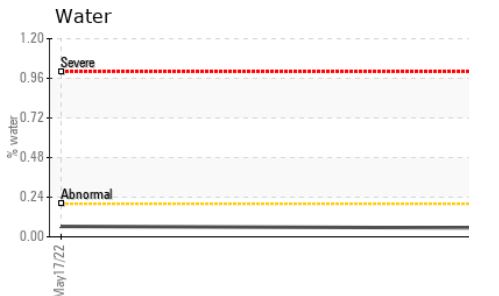
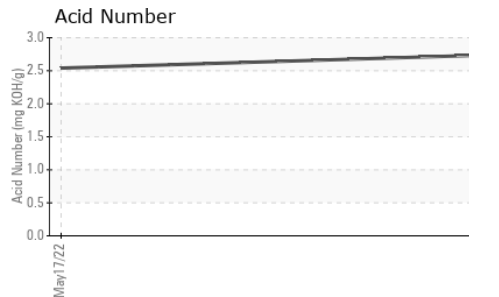
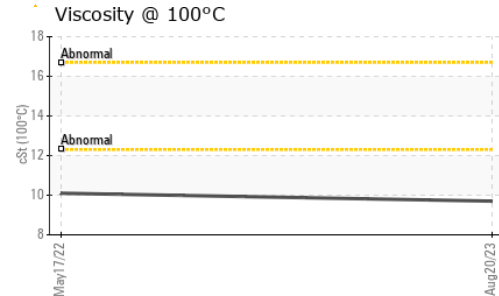
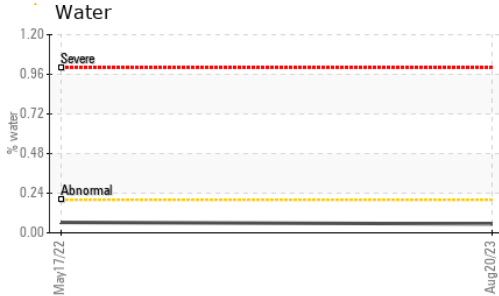
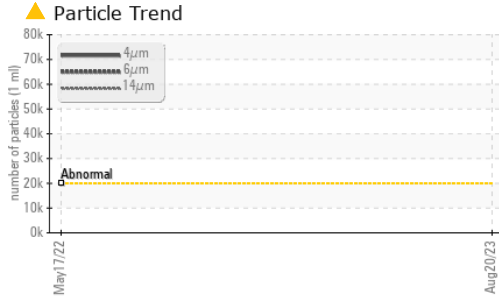
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 70952	---	---
Particles >6µm	ASTM D7647	>5000	4207	---	---
Particles >14µm	ASTM D7647	>640	40	---	---
Particles >21µm	ASTM D7647	>160	8	---	---
Particles >38µm	ASTM D7647	>40	1	---	---
Particles >71µm	ASTM D7647	>10	0	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/19/12	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.74	2.54	---



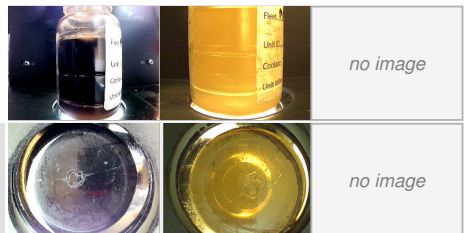
OIL ANALYSIS REPORT



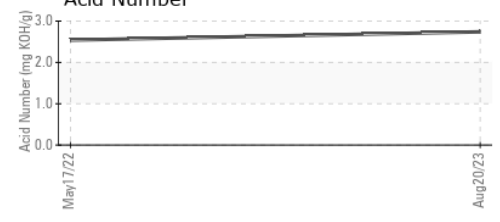
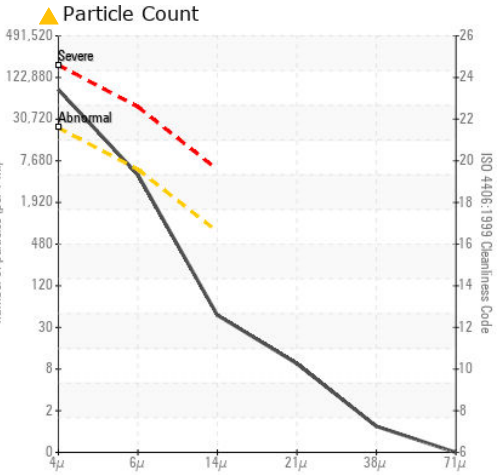
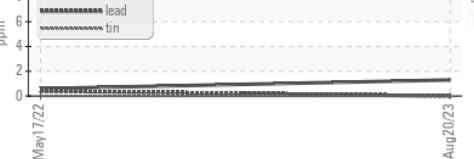
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	52.8	53.6	---
Visc @ 100°C	cSt	ASTM D445	9.7	10.1	---
Viscosity Index (VI)	Scale	ASTM D2270	171	179	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0843201 **Received** : 28 Aug 2023
Lab Number : 05936667 **Diagnosed** : 31 Aug 2023
Unique Number : 10621938 **Diagnostician** : Doug Bogart
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)