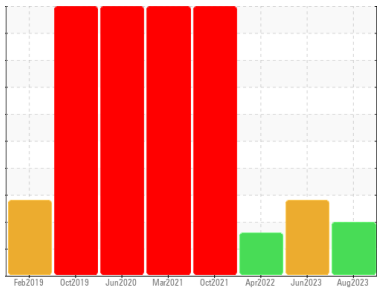
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
METRO
Machine Id
METRO 20004
Component
Transmission (Manual)
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
Bearing and/or bushing wear is indicated. Torque converter wear is indicated.

Contamination
Moderate concentration of visible dirt/debris 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		**WC0843175**	WC0828734	WC0692941
Sample Date		Client Info		**07 Aug 2023**	26 Jun 2023	09 Apr 2022
Machine Age	mls	Client Info		**421284**	409990	269507
Oil Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**157**	171	113
Chromium	ppm	ASTM D5185m	>5	**1**	1	<1
Nickel	ppm	ASTM D5185m	>5	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>7	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	▲ **286**	▲ 362	▲ 256
Lead	ppm	ASTM D5185m	>45	**0**	<1	<1
Copper	ppm	ASTM D5185m	>225	**22**	25	19
Tin	ppm	ASTM D5185m	>10	▲ **52**	▲ 58	▲ 44
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

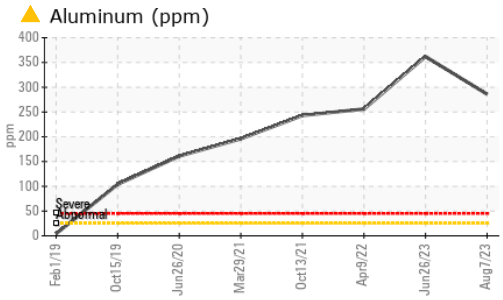
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**272**	332	298
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	<1
Manganese	ppm	ASTM D5185m		**4**	4	3
Magnesium	ppm	ASTM D5185m		**3**	3	4
Calcium	ppm	ASTM D5185m		**50**	56	54
Phosphorus	ppm	ASTM D5185m		**1104**	1214	1202
Zinc	ppm	ASTM D5185m		**9**	18	10
Sulfur	ppm	ASTM D5185m		**1695**	1370	1129

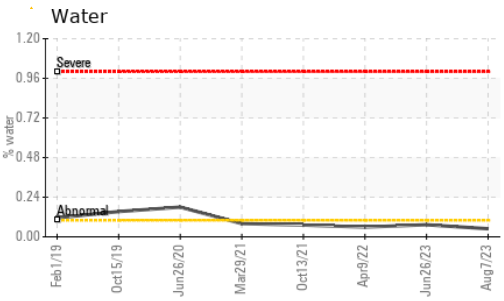
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>125	**24**	26	28
Sodium	ppm	ASTM D5185m		**3**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**6**	9	7
Water	%	ASTM D6304	>0.1	**0.049**	0.073	0.059
ppm Water	ppm	ASTM D6304	>1000	**492.6**	739.0	595.3

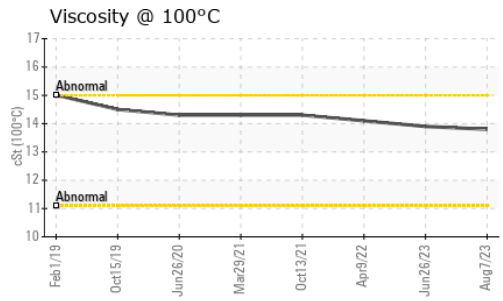
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**---**	▲ 290563	---
Particles >6µm		ASTM D7647	>2500	**---**	▲ 164351	---
Particles >14µm		ASTM D7647	>320	**---**	289	---
Particles >21µm		ASTM D7647	>80	**---**	27	---
Particles >38µm		ASTM D7647	>20	**---**	0	---
Particles >71µm		ASTM D7647	>4	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**---**	▲ 25/25/15	---

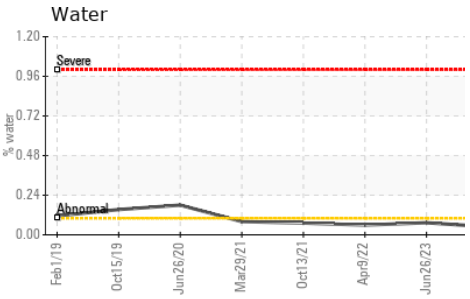
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**3.49**	3.59	4.06

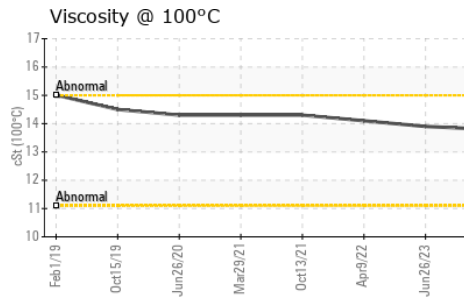
OIL ANALYSIS REPORT





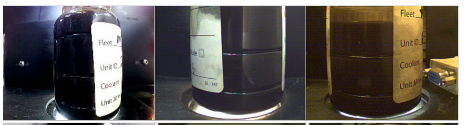
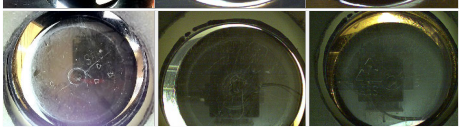




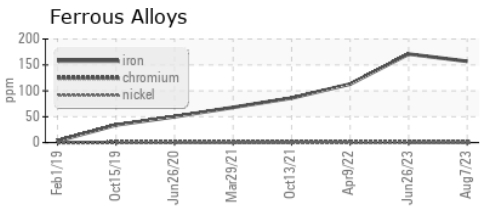


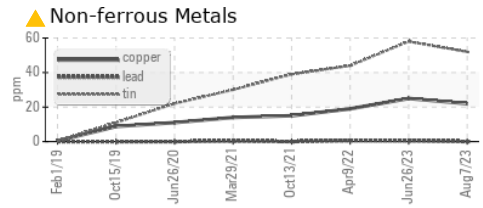
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt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

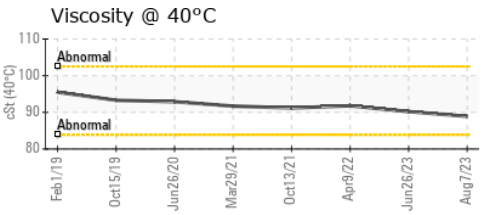
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**88.9**	90.2	91.8
Visc @ 100°C	cSt	ASTM D445		**13.8**	13.9	14.1
Viscosity Index (VI)	Scale	ASTM D2270		**158**	157	158

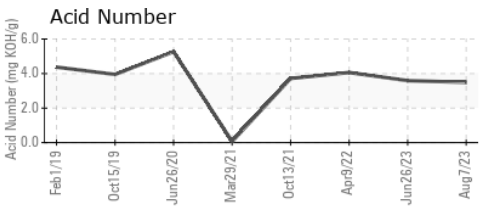
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0843175 **Received** : 22 Aug 2023
Lab Number : 05931527 **Diagnosed** : 24 Aug 2023
Unique Number : 10616798 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI)

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)

BASF - GIANNA CREDAROLI
500 WHITE PLAINS RD
TARRYTOWN, NY
US 10591
Contact: GIANNA CREDAROLI
gianna.credaroli@basf.com
T:
F: