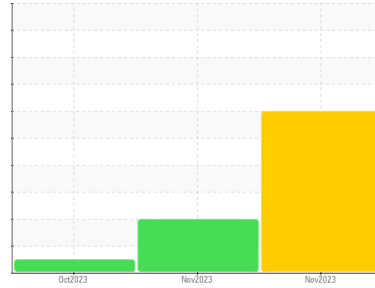




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
CHAD STEELE
 Machine Id
19-064S13-1 - 180
 Component
Hydraulic System
 Fluid
NOT GIVEN (--- QTS)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. We were unable to perform a particle count due to insufficient sample.

Wear

The copper level is severe.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0837622	WC0837623	WC0837691
Sample Date	Client Info		14 Nov 2023	14 Nov 2023	04 Oct 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	<1
Chromium	ppm	ASTM D5185m >10	0	0	<1
Nickel	ppm	ASTM D5185m >10	<1	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	0	0	1
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >75	3051	11	<1
Tin	ppm	ASTM D5185m >10	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	56	0	69
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	2	0	2
Calcium	ppm	ASTM D5185m	386	▲ 2	351
Phosphorus	ppm	ASTM D5185m	368	▲ 3	309
Zinc	ppm	ASTM D5185m	0	0	<1
Sulfur	ppm	ASTM D5185m	701	▲ 14	843

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	10	<1	3
Sodium	ppm	ASTM D5185m	<1	0	4
Potassium	ppm	ASTM D5185m >20	0	0	<1
Water	%	ASTM D6304 >0.1	0.034	0.051	0.032
ppm Water	ppm	ASTM D6304 >1000	342.0	518.3	322.1

FLUID CLEANLINESS

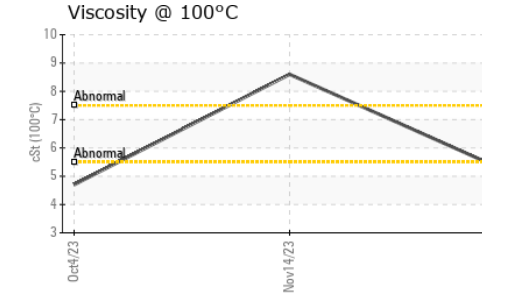
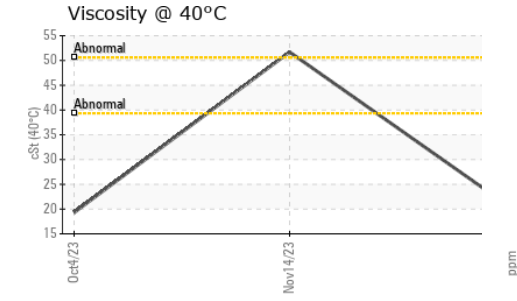
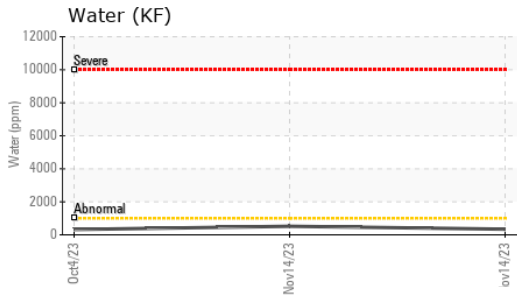
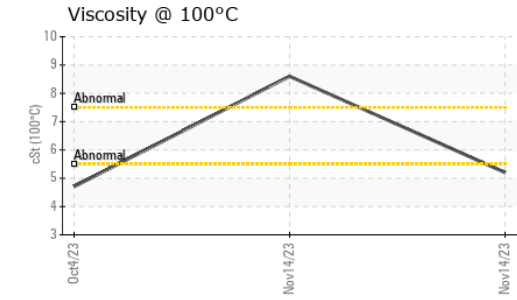
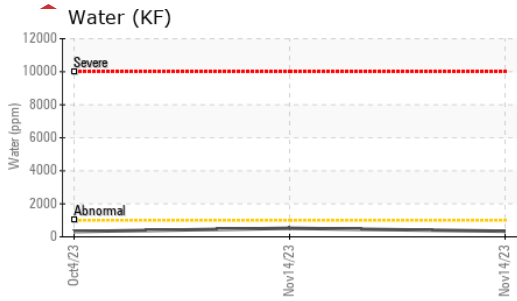
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	---	3121
Particles >6µm	ASTM D7647	>1300	---	---	468
Particles >14µm	ASTM D7647	>160	---	---	69
Particles >21µm	ASTM D7647	>40	---	---	23
Particles >38µm	ASTM D7647	>10	---	---	3
Particles >71µm	ASTM D7647	>3	---	---	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	---	19/16/13

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	3.167	3.506	1.90



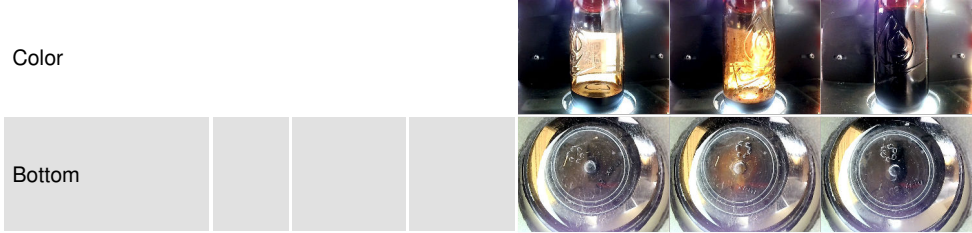
OIL ANALYSIS REPORT



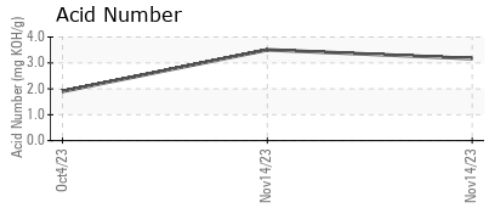
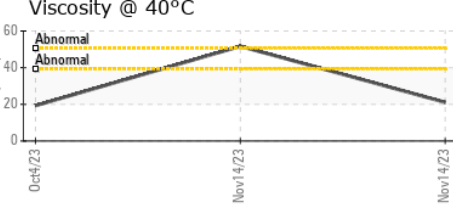
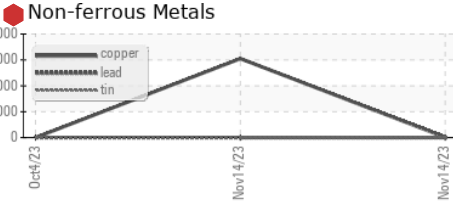
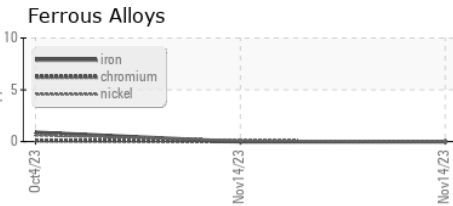
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	21.1	▲ 51.7	19.3
Visc @ 100°C	cSt	ASTM D445	5.2	8.6	4.7
Viscosity Index (VI)	Scale	ASTM D2270	193	143	173

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0837622 **Received** : 16 Nov 2023
Lab Number : 06010209 **Diagnosed** : 20 Nov 2023
Unique Number : 10749353 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: KF, KV100, VI)

BASF - TARRYTOWN
 500 WHITE PLAINS RD
 TARRYTOWN, NY
 US 10591
 Contact: PATTI CUSATIS
 patti.cusatis@basf.com
 T: (914)785-2970
 F: (914)785-2166

Certificate L2367
 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)