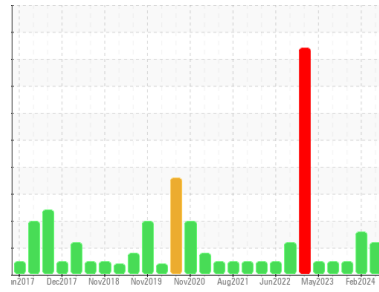




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
BUSCH VM11 / VP-3 (S/N U073906482)
 Component
Pump
 Fluid
USPI VAC 100 (--- GAL)

DIAGNOSIS

- Recommendation**
Resample at the next service interval to monitor.
- Wear**
All component wear rates are normal.
- Contamination**
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.
- Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0006801	USPM30257	USPM31397
Sample Date	Client Info		15 Apr 2024	28 Feb 2024	26 Nov 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			ATTENTION	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	0	0	0
Chromium	ppm	ASTM D5185m >5	0	0	0
Nickel	ppm	ASTM D5185m >5	0	0	<1
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >7	0	0	<1
Lead	ppm	ASTM D5185m >12	0	0	<1
Copper	ppm	ASTM D5185m >30	0	0	0
Tin	ppm	ASTM D5185m >9	<1	<1	1
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 0	0	0	<1
Calcium	ppm	ASTM D5185m 0	0	0	3
Phosphorus	ppm	ASTM D5185m 1800	801	769	729
Zinc	ppm	ASTM D5185m 0	0	0	0
Sulfur	ppm	ASTM D5185m 0	9	0	94

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	4	5	2
Sodium	ppm	ASTM D5185m	2	<1	8
Potassium	ppm	ASTM D5185m >20	16	0	1
Water	%	ASTM D6304 >.1	0.045	0.033	0.030
ppm Water	ppm	ASTM D6304 >1000	458	339	303

FLUID CLEANLINESS

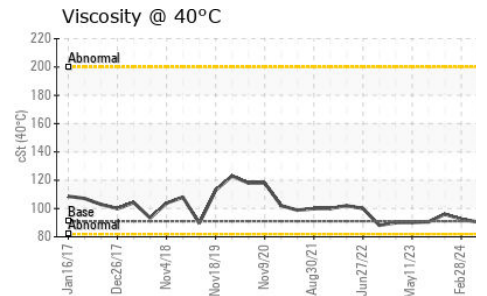
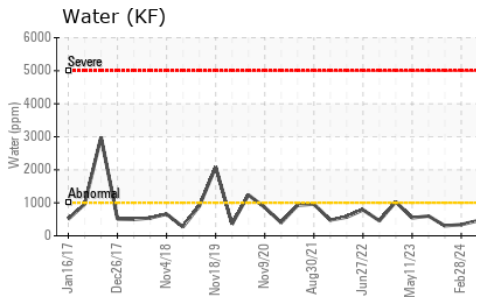
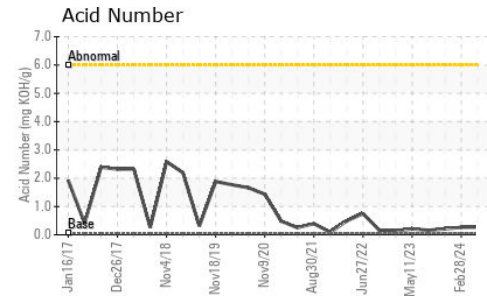
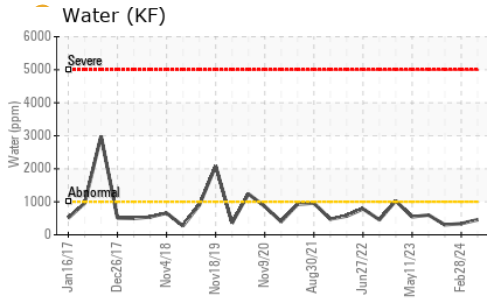
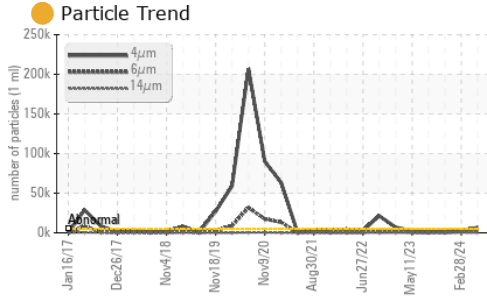
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	6601	3278	2108
Particles >6µm	ASTM D7647	>1300	1829	▲ 1763	602
Particles >14µm	ASTM D7647	>160	90	▲ 328	21
Particles >21µm	ASTM D7647	>40	17	▲ 84	4
Particles >38µm	ASTM D7647	>10	0	2	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	20/18/14	▲ 19/18/16	18/16/12

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.27	0.265	0.21



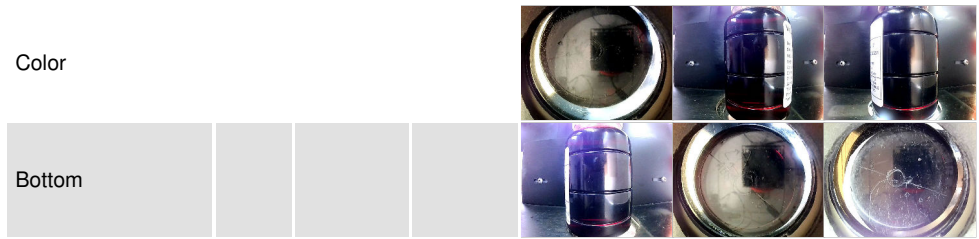
OIL ANALYSIS REPORT



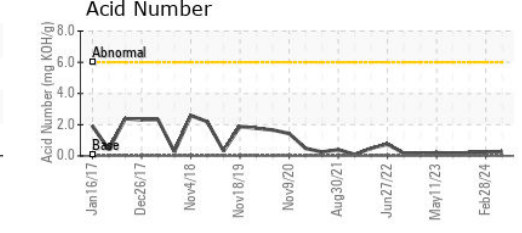
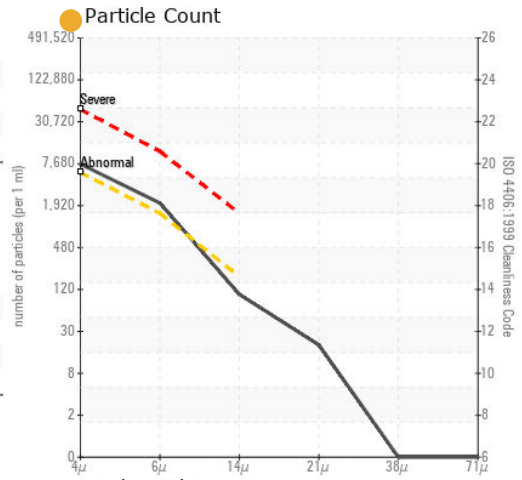
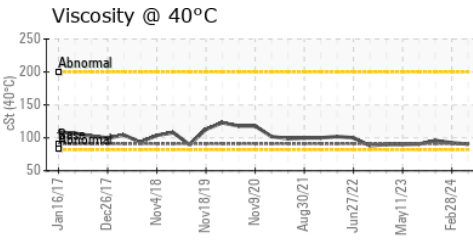
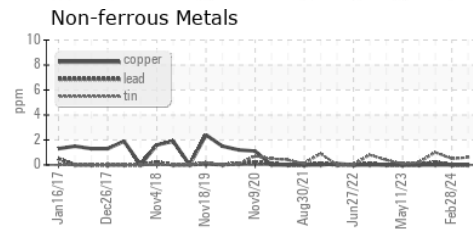
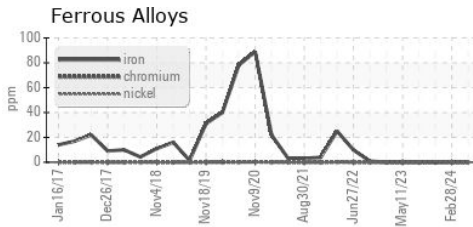
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	90.5	92.5	96.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : USP0006801
 Lab Number : 06150385
 Unique Number : 10980463
 Test Package : IND 2

Received : 16 Apr 2024
 Tested : 17 Apr 2024
 Diagnosed : 17 Apr 2024 - Doug Bogart

TYSON-DAKOTA CITY-PRO
 P.O. BOX 515
 DAKOTA CITY, NE
 US 68731
 Contact: Service Manager

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: (605)235-2960