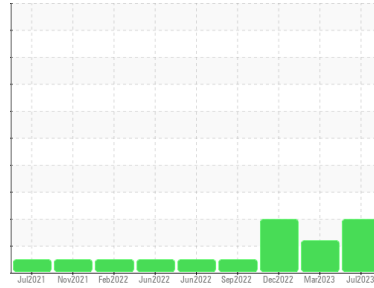




# PROBLEM SUMMARY

Sample Rating Trend



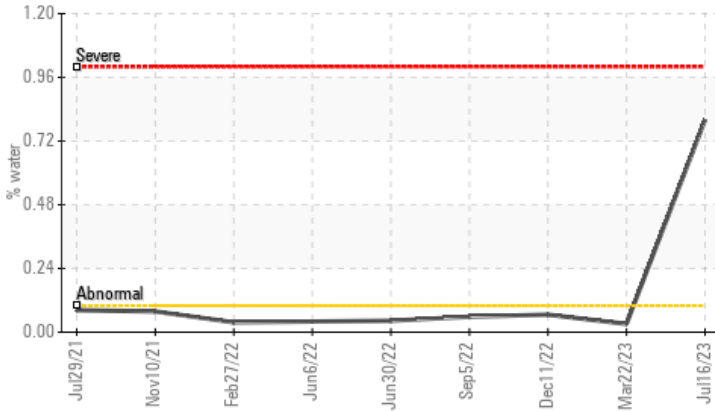
**WATER**



Machine Id  
**BUSCH CV3 P3**  
 Component  
**Vacuum Pump**  
 Fluid  
**USPI VAC 100 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Water



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	ATTENTION	ATTENTION
Water	%	ASTM D6304		▲ <b>0.800</b>	0.031	0.066
ppm Water	ppm	ASTM D6304	>.1	▲ <b>8000</b>	310.7	662.5
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	NONE	LIGHT
Emulsified Water	scalar	*Visual		▲ <b>0.2%</b>	NEG	NEG

Customer Id: SIOSIOIOW  
 Sample No.: USP255072  
 Lab Number: 05899950  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

## HISTORICAL DIAGNOSIS

### 22 Mar 2023 Diag: Doug Bogart

#### VISCOSITY



We advise an early resample to confirm this situation. Insufficient sample was received to conduct or confirm all the routine laboratory tests. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand or type of oil. Confirm oil type.

[view report](#)



### 11 Dec 2022 Diag: Doug Bogart

#### ISO



Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 05 Sep 2022 Diag: Doug Bogart

#### NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

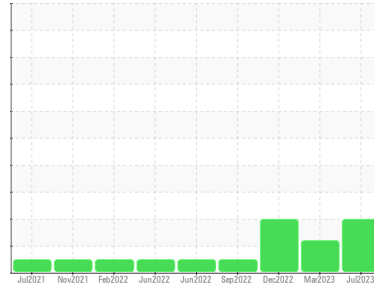
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**BUSCH CV3 P3**  
 Component  
**Vacuum Pump**  
 Fluid  
**USPI VAC 100 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

### Wear

All component wear rates are normal.

### ▲ Contamination

Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of water 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		<b>USP255072</b>	USPM27659	USPM25169
Sample Date	Client Info		<b>16 Jul 2023</b>	22 Mar 2023	11 Dec 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ATTENTION	ATTENTION

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<1	8	0
Chromium	ppm	ASTM D5185m >20	0	<1	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >20	0	<1	<1
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	0	0	<1
Tin	ppm	ASTM D5185m >20	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>3</b>	2	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	<b>0</b>	1	0
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	9	<1
Calcium	ppm	ASTM D5185m 0	<b>0</b>	14	0
Phosphorus	ppm	ASTM D5185m 1800	<b>1242</b>	▲ 455	1195
Zinc	ppm	ASTM D5185m 0	<b>0</b>	20	0
Sulfur	ppm	ASTM D5185m 0	<b>250</b>	▲ 238	116

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>6</b>	5	3
Sodium	ppm	ASTM D5185m	<b>0</b>	0	0
Potassium	ppm	ASTM D5185m >20	<1	2	<1
Water	%	ASTM D6304	▲ <b>0.800</b>	0.031	0.066
ppm Water	ppm	ASTM D6304 >.1	▲ <b>8000</b>	310.7	662.5

## FLUID CLEANLINESS

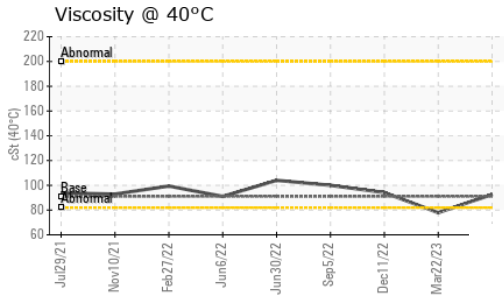
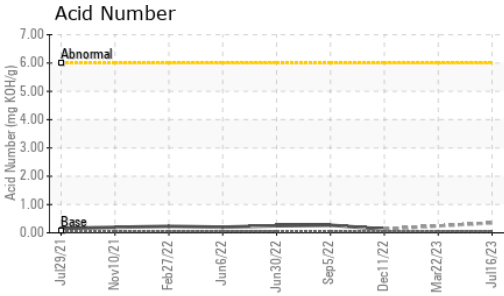
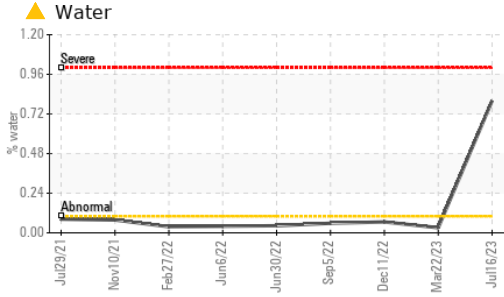
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	---	▲ 7443
Particles >6µm	ASTM D7647	>1300	---	---	▲ 2474
Particles >14µm	ASTM D7647	>160	---	---	▲ 222
Particles >21µm	ASTM D7647	>40	---	---	▲ 56
Particles >38µm	ASTM D7647	>10	---	---	5
Particles >71µm	ASTM D7647	>3	---	---	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	---	▲ 20/18/15

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.35</b>	---	0.13



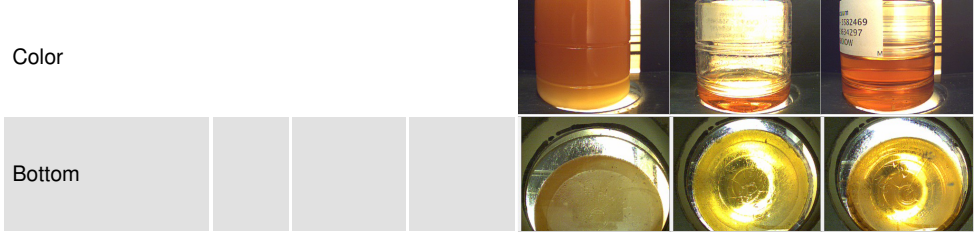
# OIL ANALYSIS REPORT



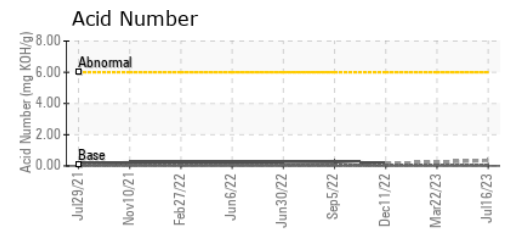
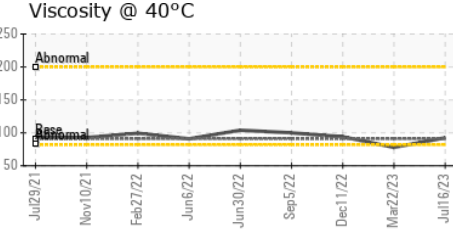
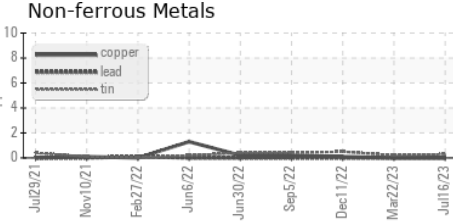
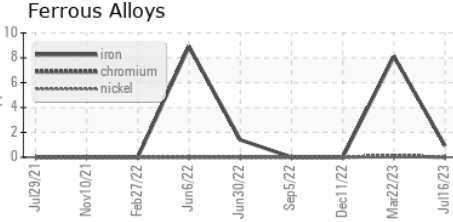
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	▲ 0.2%	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	92.6	▲ 77.9	94.1

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP255072 **Received** : 17 Jul 2023  
**Lab Number** : 05899950 **Diagnosed** : 18 Jul 2023  
**Unique Number** : 10561306 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**SIUXPREME PACKAGING COMPANY**  
 2800 MURRAY STREET  
 SIOUX CITY, IA  
 US 51111  
 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: