# STATE OF WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES Bureau for Public Health Office of Environmental Health Services Fairmont District Office

Jeffrey H. Coben, MD Interim Cabinet Secretary Dr. Sherri A. Young, DO, MBA Interim Secretary, DHHR

July 31, 2023

Mr. Paul Spencer, Chairman Adrian Public Service District P.O. Box 87 French Creek, WV 26218

Re: Sanitary Survey

Adrian Public Service District

WV3304911 Upshur County

Dear Mr. Spencer:

On July 25 & 26, 2023 a Sanitary Survey was conducted of the referenced water system by a representative of the Fairmont District Office of the Office of Environmental Health Services (OEHS). This was performed in accordance with the requirements of the West Virginia Public Water System Legislative Rule, and the US EPA Safe Drinking Water Act, as amended. We would like to thank you and the site visit participants for the courtesy and assistance provided during the inspection of your public water supply system.

Eight major elements were reviewed in detail during this sanitary survey. The eight major elements are: source, treatment, distribution system, finished water storage, pumps/pump facilities and controls, monitoring/reporting/data verification, water system management/operation, and operator compliance with State requirements. Deficiencies found or recommendations made concerning these eight major elements are presented in the following sections.

Based upon review of the available records and visual examination of the facilities, **no significant deficiencies were discovered**; however, some "minor" deficiencies and/or "recommendations" may exist and if so, are documented within this letter. Your system should be commended on achieving a level of no significant deficiencies. Any items listed as "minor" or as "recommendations" could eventually lead to more serious conditions, so the system should try to address them but is not required to provide a written response to them as with a significant deficiency.

Sanitary Survey Adrian PSD July 25 & 26, 2023 Page 2

#### **Significant Deficiencies**

A significant deficiency is defined as: "Any defect in a system's design components, operation, maintenance, or administration, as well as any failure or malfunction of any system component, that the department determines may cause an unacceptable public health risk; have the potential to cause the introduction of contamination into drinking water; or may adversely affect the reliable delivery of safe drinking water to the public."

*No observations were recorded in this category.* 

#### **Minor Deficiencies**

The following observations made at the time of the survey don't fully meet the definition listed previously for significant deficiencies at the present time but have the potential to result in significant deficiencies in the future if not addressed. WVDHHR strongly recommends that the following minor deficiencies be addressed to help maintain compliance with primary drinking water regulations.

- 1. Distribution system accountability, as reported in the Public Service Commission's annual report, dated 6/30/2022, indicated unaccounted for losses of only 0.51%, which is excellent. However, 23.7% of the purchased water was reported as water main leaks, and only 66.9% of the water purchased during the previous 12-month period was reported to be sold to the customer base. This is significantly less than the state recommended goal of ≥85%.
- 2. A large hornet nest was discovered on the Alexander Tank on the bottom of the walkway platform.

#### Recommendations

The following observations made at the time of the survey have the potential to produce or to result in minor or significant deficiencies in the future. WVDHHR recommends that the following be addressed to help maintain compliance with primary drinking water regulations.

- 1. Continue to monitor the total chlorine residual in the water supply on a daily basis, as required by the Safe Drinking Water Act (SDWA), as amended, and the WV Public Water Systems Legislative Rule (64CSR3), and report the daily test results on the monthly operational report (MOR).
- 2. Continue to submit the EW-210 MOR to the Office of Environmental Health Services/Environmental Engineering Division (OEHS/EED) at the end of each month, to include the volume of water purchased, daily total chlorine residual, and the pounds (or gallons) of additional chlorine dosed to the water supply, as appropriate.
- Continue to ensure that an adequate staff of certified operators is employed to operate the water system, in compliance with the SDWA, as amended, and with the West Virginia Public Water Systems Legislative Rule (64CSR3), and the Public Water Systems Operators Legislative Rule (64CSR4).
- 4. Continue to monitor as required under the SDWA for total coliforms, Lead and Copper and Disinfection By-Products (DBPs) in accordance with the monitoring guidelines provided by the OEHS/EED. Be sure

Sanitary Survey Adrian PSD July 25 & 26, 2023 Page 3

to sample from pre-approved sampling locations, and submit certified laboratory test results to the OEHS/EED. Continue efforts to determine the presence or absence of lead service lines, as appropriate.

- 5. Continue to issue public notices as may be periodically necessary for inadvertent violations of the monitoring and reporting requirements. Continue to issue a yearly Consumer Confidence Report (CCR) on or before June 30 each year, based on the previous year's operational data.
- 6. Continue to maintain water distribution accountability records on a monthly basis as appropriate, with the goal of accounting for ≥85% of metered water sales to the customer base for water purchased through the master meter. Continue the meter testing and /or replacement program.
- 7. Continue to implement an active cross-connection, backflow prevention program to prevent potential contaminants from backflowing into the distribution system.
- 8. Coordinate with the third party telemetry and/or SCADA provider, as appropriate, to ensure that cybersecurity precautions have been implemented in accordance with recently adopted USEPA guidelines. Reference *Evaluating Cybersecurity During Public Water System Sanitary Surveys*, EPA Office of Water (4608T), EPA 817-B-23-001, March 2023.
- 9. It is noted that a current upgrading/expansion project is underway which will add 2 new tanks at Helvetia and Pickens, and 3 new BPSs at Metzner Hollow, Little Meadow Medical Center and at Helvetia. Also the Hinkleville BPS will be upgraded to 400 gpm, the Beechtown BPS will be upgraded to 300 gpm and the Carter BPS will be upgraded to 120 gpm; also, 31.26 miles of 2" 10" water mains will be added to the system. As of June 30, 2023, about 52.7% of the project has been completed. Also the current telemetry to all tanks and BPS will be upgraded with new software from C.I. Thornburg.

As stated previously, since no "significant deficiencies" were found during this survey you do not need to submit a written response to the items listed; however, the items listed as "minor" or as "recommendations" could eventually lead to more serious conditions, so the system should try to address them.

Should you have any comments or questions concerning this report and its contents please contact me by email at craig.r.cobb@wv.gov or by telephone at 304-368-2530.

Sincerely yours, Craig R. Cobb-

Craig R. Cobb
District Engineer

Fairmont District Office

Environmental Engineering Division

pc: Central Office File, Water Sanitation Surveys
Fairmont District Office file
Eric Brunn, Chief Operator

#### **PHOTOS**



This photo shows the site for the 25 gpm Metzner Hollow BPS which will be placed into service within the next several months.



This photo shows the site of the 50 gpm Health Clinic BPS which will be placed into service in the next several months.

### **PHOTOS (Continued)**



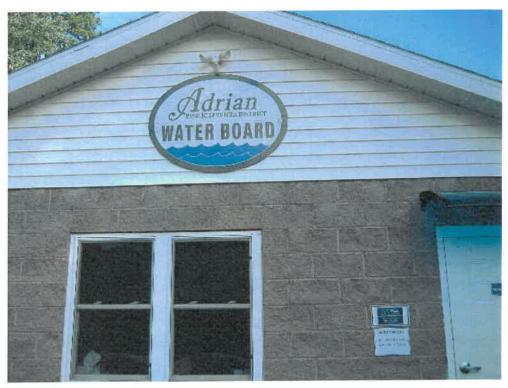
This photo shows the site for the 53,000-gallon Helvetia Tank and the 70 gpm Helvetia BPS, which should be in service within the next several months...



This photo shows the site for the 64,000-gallon Pickens Tank, which should be installed and in operation within the next several months.

#### SANITARY SURVEY

PWSID No. WV3304911
Adrian Public Service District
Upshur County



Adrian PSD office

BY: Craig R. Cobb, District Engineer

WV BUREAU FOR PUBLIC HEALTH
OFFICE OF ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL ENGINEERING DIVISION
FAIRMONT DISTRICT OFFICE

Conducted: July 25 & 26, 2023

#### **TABLE OF CONTENTS**

#### PWSID No. WV3304911 Adrian Public Service District Upshur County

#### Sanitary Survey - July 25 & 26, 2023

SOURCE	1
TREATMENT	1
DISTRIBUTION SYSTEM	2
FINISHED WATER STORAGE	4
PUMPS / PUMP FACILITIES PRVs AND CONTROLS	28
MONITORING / REPORTING / DATA VERIFICATION	41
WATER SYSTEM MANAGEMENT / OPERATIONS	42
OPERATOR COMPLIANCE WITH STATE REQUIREMENTS	43
ATTACHMENTS:	

- A. Distribution System Schematic
- B. Sanitary Survey Acknowledgement Form
- C. Chemical Feeder Charts for Beechtown BPS and Grand Camp BPS

 $\Box$ 

## SOURCE CC-001

Is there a raw water sampling tap available?	YES		NO	NA	Х
Is the system monitoring raw water quality?	YES		NO	NA	Х
Is there standby power available for the source facility?	YES		NO	NA	Х
Does the source supply adequate quantity to meet demand?	YES	X	NO	NA	
Does the system have an emergency spill response plan?	YES		NO	NA	х
Is source used the actual best available source?	YES	X	NO	NA	
Source facilities have duality, can still meet demand with one unit out of service	e? YES		NO	NA	х
Raw Water Design Capacity NA					

Treated source water from the City of Buckhannon is received through a 4-inch, radio-read Neptune master meter, secured in a concrete vault with a locked Bilco cast-aluminum lid. During April 2023, the PSD purchased a total of 11.234 MG, or about 0.374 MGD. The radio read meter is read daily by the PSD operations staff.

#### **TREATMENT**

All treatment is provided by the City of Buckhannon which treats surface water from the Buckhannon River to comply with the mandates of the Safe Drinking Water Act, as amended, and the WV PWS Design Standards (64CSR77). Adrian PSD provides no additional treatment, except for booster chlorination at several of the BPSs.

#### **Average Monthly Water Use Data**

Month Year										
	April 2019	April 2020	April 2021	April 2022	April 2023					
Monthly Water Use (MG)	10.0584	8.3711	10.0523	8.0448	11.234					
Ave. Daily Water Use (MGD)	0.335	0.279	0.335	0.268	0.374					

	DISTRIBUTION SYSTEM							
Does the system have accurate and up-to	o-date distribution mapping?		YES	X	NO			
Minimum pressure in the system	30 psig-static							
Maximum pressure in the system	90 psig-static							
Is the system pressure being maintained flow conditions) throughout the distribu	above 30 psi (static conditions) and/or 20 pstion system?	si (all	YES	X	NO			
Piping materials/sizes used	The distribution system includes a total of ^	'154 mil	es of w	ater me	ains, inc	luding		
about 4740-feet of 10-inch; 123,266-feet	— of 8-inch; 316,325-feet of 6-inch; 297,433-fee	t of 4-in	ch; 11,	100-fee	t of 3-ir	nch; and		
62,686-feet of 2-inch water mains. Materials include ~90% PVC pipe, with some ductile iron river crossings. Current upgrading/extension project will add 31.26 miles of 2"-10" mains under permit 20,757 issued on 9/7/2021, to include: 5350' of 10", 31,725' of 8", 38,155' of 6", 76,720' of 4" and 13,100' of 2" PVC mains; for a new total of ~185-miles of mains.								
Does the system have any lead service lines. 72.5% are current	nes? Unknown. Not currently aware of any ly reported as UNKNOWN.		YES		NO	X		
If lead service lines are present, does sys	tem have a plan to replace those line?	YES	<b>√</b> I	ON	NA			
Working toward the Oct. 2024 due date		1						
Please Describe: The oldest construct	ion permit on file was issued on 3/19/1987, s	o it is an	nticipate	ed that	there a	re		
no lead service lines within the water dist	ribution system, but the service line materials	, and in	ternal p	lumbir	ng mate	rials		
	he PSD operations staff by the October 2024 ( red very low L&C concentrations for all custor			e. Also	, the m	ost		
Does the system have an adequate distr Reported flushing is twice per year			YES	X	NO			
Does the system have an adequate distr	ibution valve exercise program?		YES	X	NO			
	are exercised during the semi-a	nnua	l flusi	nina		1		

It is understood that valves are exercised during the semi-annual flushing program.

		. 482 0	01 43 P	
Does the system have adequate valves for isolation of sections of the distribution syst	em? YE	s X	NO	
Does the system have an adequate meter inspection and replacement program?	YE	s X	NO	
It is understood that meters are tested or replaced every 10 y	ears.			_
System monitoring and recording the distribution system total chlorine residuals daily	? YE	s X	NO	
Total chlorine residual maintained at or above 0.2 mg/L throughout distribution system	n? YE	s X	NO	
All distribution mains adequately sized?	YE	s X	NO	
If any extension > 1000 ft was installed was a permit obtained?	YE	s X	NO	
There are currently 17 construction permits on file, dated fro	m 1987	o 202	21.	
All new and repaired mains properly flushed, disinfected and bacteriologically tested?	YE	s X	NO	
<b>DISTRIBUTION SYSTEM (Continued)</b>				
Ī				
If fire hydrants are provided are they properly maintained?	YES X	NO		NA
If fire hydrants are provided are they properly maintained?  A total of 99 fire hydrants have been installed, with about 6 additional FHs being added under the current upgrading process.		NO		NA
A total of 99 fire hydrants have been installed, with about 6 additional FHs being added under the current upgrading p			NO	
	roject.		NO	
A total of 99 fire hydrants have been installed, with about 6 additional FHs being added under the current upgrading properties the system have adequate corrosion control program?  Corrosion control treatment is provided by the City of Buckh	roject.	s X	NO	
A total of 99 fire hydrants have been installed, with about 6 additional FHs being added under the current upgrading properties the system have adequate corrosion control program?	roject. YE annon.	s X		
A total of 99 fire hydrants have been installed, with about 6 additional FHs being added under the current upgrading properties the system have adequate corrosion control program?  Corrosion control treatment is provided by the City of Buckh Does the system have a cross connection and backflow prevention program?	roject. YE annon.	s X		

#### **SERVICE CONNECTION SUMMARY**

	Connection Type								
	Commercial	Public Use	Residential						
Number of connections	81	1*	2229						
Meter Size	1-1/2" thru 5/8"	4"	5/8"						

Population served 2229 x 2.39= 5327 persons.					_		
Any Purchase Systems? Yes No X	List th	iem					
Does the system purchase from another?	х	No	List		City of Buc (PWSID #3		
Total Population served (with all purchase systems)	)			53	227		
See ATTACHMENT A and BPSs which will		-	-				
oes the system have an unaccounted for water percen	tage les	s than 1	5%?		YES	X	NO
But total water sales between 7/1/21 to with reported main leaks of 23.7%	6/30/	22 wer	e only	66.9%	•		
oes the system have an unaccounted for water percen	tage les	s than 40	)%?		YES	X	NO
However, accounted-for losses were reattributed to water main breaks. A goastrongly recommended.  FINISHED V	eporte al of <u>s</u>	ed to b elling	e 32.6% <u>&gt;</u> 85% c	∕₀, incl	uding 23	3.7%	losses
Name of Storage unit/facility	ST-00	1 / Frenc	h Creek T	ank site	, Tank 1		
Telemetry for this tank site is solar and w				nks hav	e passive	mixi	ng.
Type: Ground X		Elevated			Below gro	und	
Construction material Glass-lined, Bolted ste	eel	Date o	of constru	iction -		1987	

Adrian PSD Sanitary Su	irvey 🗆	July 25	& 26, 2023		F	Page 5 (	of 43 P	ages
Date of last painti	ng	NA	Date of last cleanii	ng		~2018		
Is storage tank sufficie	ntly clean intern	ally?			YES	X	NO	
Does storage tank app	ear to be structu	rally sound?			YES	X	NO	
Dimensions	~29 ft tall x	~30.7 ft diameter	Total volum	e	161	,000 gd	al .	
Is storage tank capacit	y adequate?				YES	X	NO	
Base elevation	1781′ MSL	Top elevation	1810' MSL Ov	erflow eleva	tion	181	.0' MS	L
Control type		US Filter D620i Telem	netry to PSD Office and	d to Hinklevil	le BPS			
Does system have ade	quate storage ta	nk level control?		YES	X	NO		NA
Is storage tank teleme	try being utilized	1?		YES	X	NO		NA
High water setting		~22 ft.	Volume	~1.	~122,138 gallons			
Low water setting		~19.8 ft.	Volume	~10	09,924	gallons	i	
Does storage tank have	e a sampling tap	?			YES	X	NO	
Does storage tank have	e a proper acces	s ladder?			YES	X	NO	
Does storage tank have	e adequate fenci	ing?			YES	X	NO	
Is storage tank site pro	perly graded/dr	ained?			YES	X	NO	
Is the storage tank fou	ndation in good	condition?			YES	X	NO	
	FINIS	HED WATER S	TORAGE (contir	nued)				
Is the storage tank bas	e interface with	the foundation prop	erly sealed or caulke	d?	YES	X	NO	
Are the storage tank ve	ents properly scr	eened?			YES	X	NO	

Adrian PSD Sanitary Survey   July 25 & 26, 2023	Page 6 of 43 Pages
Is the storage tank hatch properly secured?	YES X NO
Is the storage tank adequately secured?	YES X NO
Is there an adequate storage tank access road?	YES X NO
Does the storage tank have adequate overflow erosion protection?	YES X NO
Is the storage tank overflow properly screened?	YES X NO
Is the storage tank site free of excessive/uncontrolled vegetation inside and/or around the fenced area?	YES X NO
Is the storage tank free of overhanging trees or other items which could pose a damage threat to the tank?	YES X NO
Is the storage tank free of any holes caused by damage or corrosion?	YES X NO
Is the storage tank free of leaks and does not require immediate repair?	YES X NO
Is the storage tank free of widespread area of severe oxidation and/or signs the exterior coating has exhausted its useful life span?	YES X NO
Is the storage tank overall coating in fair or better condition and does not require repainting consideration for the entire tank at this time?	YES X NO
Is the storage tank coating free of small areas of concern that would require at least preventative spot painting?	YES X NO
Does the system have adequate storage tank corrosion control measures in place?	YES X NO
Corrosion control is provided by Buckhannon.	
FINISHED WATER STORAGE	
Name of Storage unit/facility ST-001 / French Creek Tank site, To	ank 2
Tank Location data is on file.	
Type: Ground X Elevated B	elow ground
Construction material Glass lined, bolted steel Date of construction	2018
Date of last painting NA Date of last cleaning	~2018

						v			
Is storage tank sufficie	ently clean intern	ally?				YES	X	NO	
Does storage tank app	ear to be structu	ırally sound?				YES	X	NO	
Dimensions —	~28.43 ft tall >	⟨ ~39.16 ft in diameter	Total vo	lume		~251	,660 g	al	
Is storage tank capacit	ty adequate?					YES	X	NO	
Base elevation	1781' MSL	Top elevation	1810' MSL	Overflor	w eleva	tion	181	o' MS	<u></u>
Control type		US Filter D620i Teleme	try to PSD Office	and to H	inklevill	e BPS			
Does system have ade	quate storage ta	nk level control?			YES	X	NO		NA
Is storage tank teleme	etry being utilized	ł?			YES	X	NO		NA
High water setting	g	~22 ft.	Volume	·	~1	94,742	gallons	s	
Low water setting	3	~19.8ft.	Volume	:	~17	5,268	gallons		
Does storage tank hav	e a sampling tap	?				YES	X	NO	
Does storage tank hav	e a proper acces	s ladder?				YES	X	NO	
Does storage tank hav	e adequate fenc	ing?				YES	X	NO	
Is storage tank site pro	operly graded/dr	ained?				YES	X	NO	
Is the storage tank fou	ındation in good	condition?				YES	X	NO	
	FINIS	SHED WATER ST	ORAGE (cor	ntinued	d)				
Is the storage tank bas	,					YES	X	NO	
Are the storage tank v						YES	X	NO	T
Is the storage tank hat						YES	X	NO	
is the stolage talk ligh	en property secu								

Adrian PSD Sanitary Survey

Page 7 of 43 Pages

Adrian PSD Sanitary Survey   July 25 & 26, 2023		Page	8 of 43 Pa	iges
Is the storage tank adequately secured?		YES	X NO	
Is there an adequate storage tank access road?		YES	X NO	
Does the storage tank have adequate overflow erosion protection?		YES	X NO	
Is the storage tank overflow properly screened?		YES	X NO	
Is the storage tank site free of excessive/uncontrolled vegetation inside and fenced area?	or around the	YES	X NO	
Is the storage tank free of overhanging trees or other items which could posthreat to the tank?	e a damage	YES	X NO	
Is the storage tank free of any holes caused by damage or corrosion?		YES :	X NO	
Is the storage tank free of leaks and does not require immediate repair?		YES	X NO	
Is the storage tank free of widespread area of severe oxidation and/or signs coating has exhausted its useful life span?	the exterior	YES	X NO	
Is the storage tank overall coating in fair or better condition and does not re painting consideration for the entire tank at this time?	quire re-	YES :	X NO	
Is the storage tank coating free of small areas of concern that would require preventative spot painting?	at least	YES	X NO	
Does the system have adequate storage tank corrosion control measures in	place?	YES	X NO	
Corrosion control is provided by Buckhannon.				
FINISHED WATER STORAG	<u> </u>			
Name of Storage unit/facility ST-002 / Rock Car	ve Tank site, Tank	1		
Both tanks at this tank site have passiv Tank Location data is on file.				
Туре: Ground X Elevated	Beld	ow grour	nd	
Construction material Glass lined, bolted steel Date of co	onstruction	19	87	
Date of last painting NA Date of last cle	eaning	~201	8	_
Is storage tank sufficiently clean internally?		YES 2	X NO	

Adrian PSD Sanitary Survey	July 25	& 26, 2023		Page	10 o	f 43 Pages	
Is the storage tank adequately secure	d?		[	YES	X	NO	
Is there an adequate storage tank acco	ess road?			YES	X	NO	
Does the storage tank have adequate	overflow erosion pro	etection?		YES	X	NO	
Is the storage tank overflow properly	screened?			YES	X	NO	
Is the storage tank site free of excession fenced area?	ve/uncontrolled vege	etation inside and/or arou	ind the	YES	X	NO	
Is the storage tank free of overhanging threat to the tank?	g trees or other items	s which could pose a dam	age	YES	X	NO	
Is the storage tank free of any holes ca	aused by damage or o	corrosion?	_	YES	X	NO	
Is the storage tank free of leaks and de	oes not require imme	ediate repair?		YES	X	NO	
Is the storage tank free of widespread coating has exhausted its useful life sp		tion and/or signs the exte	erior	YES	X	NO	
Is the storage tank overall coating in fa		n and does not require re	-	YES	X	NO	
Is the storage tank coating free of sma preventative spot painting?	all areas of concern th	nat would require at least		YES	X	NO	
Does the system have adequate storage Corrosion control is provide		-		YES	X	NO	
Corrosion Control is provide	su by Duckilaillic	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	FINISHED WA	TER STORAGE					
Name of Storage unit/facility		ST-002 / Rock Cave Tank	site, Tank 2	!			
	Tank Location	n data is on file.					
Type: Ground	X E	levated	Belo	w grou	ınd [		
Construction material Glo	ass lined, bolted steel	Date of constructi	on	20	018	-	
Date of last painting	NA	Date of last cleaning	5	~20	)18		
Is storage tank sufficiently clean inter	nally?			/ES	x	NO	1

Adrian PSD Sanitary Survey	July 25 & 26, 2023	☐ Pag	ge 12 01	43 Pages
Is the storage tank adequately secured?		YES	X	NO
Is there an adequate storage tank access	s road?	YES	X	NO
Does the storage tank have adequate ov	rerflow erosion protection?	YES	X	NO
Is the storage tank overflow properly scr	reened?	YES	X	NO
Is the storage tank site free of excessive, fenced area?	/uncontrolled vegetation inside and/or arou	rind the YES	X	NO
Is the storage tank free of overhanging t threat to the tank?	rees or other items which could pose a dama	yES	x	NO
Is the storage tank free of any holes cau	sed by damage or corrosion?	YES	X	NO
Is the storage tank free of leaks and doe	s not require immediate repair?	YES	X	NO
Is the storage tank free of widespread a coating has exhausted its useful life spa	rea of severe oxidation and/or signs the exten?	erior	x	NO
Is the storage tank overall coating in fair painting consideration for the entire tan	r or better condition and does not require renk at this time?	YES	x	NO
Is the storage tank coating free of small preventative spot painting?	areas of concern that would require at least	YES	X	NO
Does the system have adequate storage  Corrosion control is provided	tank corrosion control measures in place? I by Buckhannon.	YES	X	NO
	FINISHED WATER STORAGE			
Name of Storage unit/facility	ST-003 / Grand Camp Tank (	Big Bend Tank)		
	Tank Location data is on file.			
Type: Ground X	Elevated	Below gr	ound	
Construction material Glass	s lined, bolted steel Date of construction	ion 	2004	
Date of last painting	NA Date of last cleaning	~	2018	

Adrian PSD Sanitary Sur	vey 🗆	July 25	& 26, 2023		]	P	age <b>1</b> 3	of 43	Pages
Is storage tank sufficien	age tank sufficiently clean internally?    YES   X   NO								
Does storage tank appe	ar to be structu	urally sound?				YES	X	NO	
Dimensions	~33 ft tall x	~16.7 ft in diameter	Total volum	ne _		~54	,000 ga	ıl	
Is storage tank capacity	adequate?					YES	X	NO	
Base elevation	1981' MSL	Top elevation	2014' MSL ON	verflow	elevat	tion	201	4' MS	L
Control type	U	IS Filter D620i Teleme	try to PSD Office and	l to Gran	nd Can	np BPS	S		
Does system have adeq	ave adequate storage tank level control? telemetry being utilized? r setting $\sim 30 ft$ . Volume					X	NO		NA
Is storage tank telemet	ry being utilized	4?			YES	X	NO		NA
High water setting	Fa.	~30 ft.	Volume		~4	9,091	gallons	1	
Low water setting		~19.5 ft.	Volume		~3:	1,909	gallons		
Does storage tank have	a sampling tap	?				YES	X	NO	
Does storage tank have	a proper acces	s ladder?				YES	X	NO	
Does storage tank have	adequate fenc	ing?				YES	X	NO	
Is storage tank site prop	erly graded/dr	rained?				YES	X	NO	
Is the storage tank foun	dation in good	condition?				YES	X	NO	
	FINIS	SHED WATER ST	ORAGE (conti	nued)					
Is the storage tank base	interface with	the foundation prop	erly sealed or caulke	ed?		YES	X	NO	
Are the storage tank ve	nts properly sci	reened?				YES	X	NO	
Is the storage tank hatc	h properly secu	ıred?				YES	X	NO	

YES	Х	NO
YES	X	NO
ow gro	ound	
	2004	
	2018	
	YES YES YES YES YES On the al of (	YES X

Adrian PSD Sanitary Su	ırvey 🗆	July 25	& 26, 2023		Pa	ige 15	of 43 Pag	es
Is storage tank sufficie	ntly clean interr	nally?			YES	X	NO	
Does storage tank app	ear to be structu	urally sound?			YES	X	NO	
Dimensions	~24 ft tall x	~30.6 ft in diameter	Total volume		~132	,00 <b>0</b> ge	al	_=
Is storage tank capacit	y adequate?				YES	X	NO	
Base elevation	2132′ MSL	Top elevation	2156' MSL <b>Ove</b>	erflow eleva	tion	215	6′ MSL	
Control type		US Filter D620i Tele	metry to PSD Office ar	nd to Carter	BPS			
<del> </del>								
Does system have ade	quate storage ta	nk level control?		YES	X	NO	NA	4
Is storage tank teleme	try being utilized	<del>1</del> ?		YES	X	NO	N/	4
High water setting	3	~24 ft.	Volume	~1.	32,000	gallon	5	_
Low water setting		~17.5 ft.	Volume	~9	6,250 g	allons		
Does storage tank have	e a sampling tap	?			YES	X	NO	
Does storage tank have	e a proper acces	s ladder?			YES	X	NO	
Does storage tank have	e adequate fenc	ing?			YES	X	NO	
Is storage tank site pro	perly graded/dr	rained?			YES	X	NO	
Is the storage tank fou	ndation in good	condition?			YES	X	NO	
	FINIS	SHED WATER ST	ORAGE (contin	ued)				
Is the storage tank bas	e interface with	the foundation prop	erly sealed or caulked	?	YES	X	NO	
Are the storage tank vo	ents properly sci	reened?			YES	X	NO	
Is the storage tank hat	ch properly secu	ired?			YES	X	NO	

Adrian PSD Sanitary Survey		July 25 & 26, 2023		Pag	ge 16 d	of 43 Pages
Is the storage tank adequately secu	ıred?			YES	X	NO
Is there an adequate storage tank a	access road?			YES	X	NO
Does the storage tank have adequa	ite overflow ero	sion protection?		YES	X	NO
Is the storage tank overflow proper	rly screened?			YES	X	NO
Is the storage tank site free of exce fenced area?	ssive/uncontrol	led vegetation inside	and/or around the	YES	X	NO
Is the storage tank free of overhang threat to the tank?	ging trees or oth	er items which could	l pose a damage	YES	X	NO
Is the storage tank free of any hole	s caused by dam	age or corrosion?		YES	X	NO
Is the storage tank free of leaks and	d does not requi	re immediate repair	?	YES	X	NO
Is the storage tank free of widespre coating has exhausted its useful life		re oxidation and/or	signs the exterior	YES	X	NO
Is the storage tank overall coating i painting consideration for the entir			ot require re-	YES	X	NO
Is the storage tank coating free of s preventative spot painting?	mall areas of co	ncern that would red	quire at least	YES	X	NO
Does the system have adequate sto	_		es in place?	YES	X	NO
	FINISHE	D WATER STO	RAGE			
Name of Storage unit/facility		ST-005	/ Salem Ridge Tank			
	Tank Lo	ocation data is on	file.			
Type: Ground	X	Elevated		Below gro	ound	
Construction material	Glass lined, bolte	ed steel Date	of construction —		2000	
Date of last painting	NA	Date of la	st cleaning	~2	2018	

Adrian PSD Sanitary Su	urvey 🗆	July 25	& 26, 2023		Pa	age 17	of 43 Pa	iges		
Is storage tank sufficie	ntly clean inter	nally?			YES	X	NO			
Does storage tank app	ear to be struct	urally sound?			YES	X	NO			
Dimensions	~38 ft tall x	~13.88 ft in diameter	Total volur	me 	~43	,000 ga	ıl	_		
Is storage tank capacit	y adequate?				YES	X	NO			
Base elevation	2141' MSL	Top elevation	2179′ MSL <b>O</b>	verflow eleva	tion	217	'9' MSL	_		
Control type		US Filter D620i Teleme								
Sieme	ens Telemet	ry to be installed t	or entire syster	m by C.I. Th	nornb	urg				
Does system have ade	quate storage t	ank level control?		YES	X	NO	N	IA		
Is storage tank teleme	try being utilize	d?		YES	X	NO	N	IA		
High water setting	B	~32 ft.	Volume	~3	~36,105 gallons					
Low water setting		~24 ft.	Volume	~2	~27,158 gallons					
Does storage tank have	e a sampling ta	p?			YES	X	NO			
Does storage tank have	e a proper acce	ss ladder?			YES	X	NO			
Does storage tank have	e adequate fen	cing?			YES	X	NO			
Is storage tank site pro	perly graded/d	rained?			YES	X	NO			
Is the storage tank fou	ndation in good	d condition?			YES	X	NO			
	FINI	SHED WATER ST	ORAGE (conti	nued)						
	e interface with	the foundation prope	erly sealed or caulk	ed?	YES	X	NO			
Is the storage tank bas	e iliteriace with									
Is the storage tank bas  Are the storage tank ve					YES	X	NO			

보고 하는 사람들이 가는 그는 것이 되었다면 하는 사람들이 되었다면 하는 것이 되었다면 하는 것이 없다면 하는 것이 없				
Is the storage tank adequately secured?	YES	X	NO	
	T	••		
Is there an adequate storage tank access road?	YES	X	NO	
Does the storage tank have adequate overflow erosion protection?	YES	X	NO	
is the storage tank overflow properly screened?	YES	X	NO	
Is the storage tank site free of excessive/uncontrolled vegetation inside and/or around the	YES	X	NO	
fenced area?	TES	Λ	NO	
Is the storage tank free of overhanging trees or other items which could pose a damage	YES	X	NO	
threat to the tank?	<u>.                                    </u>			
Is the storage tank free of any holes caused by damage or corrosion?	YES	X	NO	
	VEC	v	NO	
Is the storage tank free of leaks and does not require immediate repair?	YES	X	NO	
Is the storage tank free of widespread area of severe oxidation and/or signs the exterior	YES	X	NO	
coating has exhausted its useful life span?				
Is the storage tank overall coating in fair or better condition and does not require re- painting consideration for the entire tank at this time?	YES	X	NO	
Is the storage tank coating free of small areas of concern that would require at least				
preventative spot painting?	YES	X	NO	
Does the system have adequate storage tank corrosion control measures in place?	YES	X	NO	
Corrosion control is provided by Buckhannon.	TES	Λ	NO	
FINISHED WATER STORAGE				
Name of Storage unit/facility ST-006 / Selbyville Tank				
Tank Location data is on file.				
Type: Ground X Elevated B	elow gro	ound		
Construction material Glass lined, bolted steel Date of construction		2011		<del></del>
Date of last painting NA Date of last cleaning	~2	018		_

Page 18 of 43 Pages

Adrian PSD Sanitary Survey

Adrian PSD Sanitary Sui	rvey	July 25	& 26, 2023		Р	age 19	of 43 P	ages
Is storage tank sufficien	tly clean intern	ally?			YES	X	NO	
Does storage tank appe	ar to be structu	rally sound?			YES	X	NO	
Dimensions	~42 ft tall x	~19.5 ft in diameter	Total volume		~94	,000 ga	ıl	
Is storage tank capacity	adequate?				YES	X	NO	
Base elevation	2460′ MSL	Top elevation	2502' MSL Overflo	ow eleva	tion	250	)2′ MSL	
Control type	US Fi	lter D620i Telemetry	to PSD Office and to the F	lorseshoe	Bend	BPS		_
				L VEO	37	110		
Does system have adeq	uate storage ta	nk level control?		YES	X	NO		NA
Is storage tank telemet	ry being utilized	1?		YES	X	NO		NA
High water setting		~36 ft.	Volume	~8	0,571	gallons		
Low water setting		~18 ft.	Volume	~4(	0,286	gallons		
Does storage tank have	a sampling tap	?			YES	X	NO	
Does storage tank have	a proper acces	s ladder?			YES	X	NO	
Does storage tank have	adequate fenc	ing?			YES	X	NO	
Is storage tank site prop	perly graded/dr	ained?			YES	X	NO	
Is storage tank sufficiently clean internally?  Does storage tank appear to be structurally sound?  Dimensions								
	FINIS	HED WATER ST	ORAGE (continue	<u>ed)</u>				
Is the storage tank base	interface with	the foundation prop	erly sealed or caulked?		YES	X	NO	
Are the storage tank ve	nts properly sci	eened?			YES	X	NO	
Is the storage tank hatc	h properly secu	red?			YES	X	NO	

Adrian PSD Sani	tary Survey		July 2	5 & 26, 20	)23		Pag	ge 20 d	of 43 Page:	S
Is the storage ta	nk adequately s	ecured?					YES	Х	NO	
Is there an adeq	uate storage tar	nk access ro	ad?				YES	X	NO	
Does the storage	e tank have adeo	quate overf	ow erosion pr	otection?			YES	X	NO	
Is the storage ta	nk overflow pro	perly screer	ned?				YES	X	NO	
Is the storage ta fenced area?	nk site free of e	ccessive/un	controlled veg	etation in	side and	d/or around t	he YES	X	NO	
Is the storage ta threat to the tar	nk free of overh nk?	anging tree	s or other iten	ns which c	ould po	se a damage	YES	X	NO	
Is the storage ta	nk free of any h	oles caused	by damage or	carrosion	1?		YES	X	NO	
_	nk free of leaks						YES	X	NO	
•	nk free of wides austed its useful	-	of severe oxid	ation and	or sign	s the exterior	YES	X	NO	
-	nk overall coatir eration for the en			on and do	es not r	equire re-	YES	X	NO	
Is the storage ta preventative spe	nk coating free o	of small are	as of concern t	that would	d require	e at least	YES	X	NO	
Does the system	n have adequate	storage tan	k corrosion co	ntrol mea	sures in	place?	YES	X	NO	
Corrosion	control is pr	ovided by	Buckhann	on.						
		FII	NISHED W	ATER S	TORA	GE				
	. 10			67	/ -		4			
	orage unit/facilit ted a large ho		n the hotton			<i>llexander Tan</i>		need	to he	
770 Spot	.ca a large no			y remove	ed.					
			ank Locatio	ii uata is		·		!	<del></del> 1	
Туре:	Grour	nd X		Elevated			Below gro	ound		
Constructio	n material	Glass line	ed, bolted stee	<i>I</i> D	ate of c	onstruction		2011		
Date of last	painting	NA	1	Date	of last c	leaning	~2	2018		

Adrian PSD Sanitary Survey

Page 21 of 43 Pages

Adrian PSD Sanitary Survey   July 25 & 26, 2023	Pag	ge 22 (	of 43 Pages
Is the storage tank hatch properly secured?	YES	X	NO
Is the storage tank adequately secured?	YES	X	NO
Is there an adequate storage tank access road?	YES	X	NO
Does the storage tank have adequate overflow erosion protection?	YES	X	NO
Is the storage tank overflow properly screened?	YES	X	NO
Is the storage tank site free of excessive/uncontrolled vegetation inside and/or around the fenced area?	YES	X	NO
Is the storage tank free of overhanging trees or other items which could pose a damage threat to the tank?	YES	X	NO
Is the storage tank free of any holes caused by damage or corrosion?	YES	X	NO
Is the storage tank free of leaks and does not require immediate repair?	YES	X	NO
Is the storage tank free of widespread area of severe oxidation and/or signs the exterior coating has exhausted its useful life span?	YES	X	NO
Is the storage tank overall coating in fair or better condition and does not require repainting consideration for the entire tank at this time?	YES	X	NO
Is the storage tank coating free of small areas of concern that would require at least preventative spot painting?	YES	X	NO
Does the system have adequate storage tank corrosion control measures in place?  Corrosion control is provided by Buckhannon.	YES	X	NO
FINISHED WATER STORAGE			
Name of Storage unit/facility ST-008 / Cleveland Mountain T	ank		
Tank Location data is on file.			
Type: Ground X Elevated	Below gro	ound	
Construction material Glass lined, bolted steel Date of construction		2016	

Adrian PSD Sanitary S	Survey 🗆	July 25	& 26, 2023		Pa	age 23	of 43	Pages	
Date of last paint	ing	NA	Date of last cle	eaning	,	~2018			
Is storage tank suffici	ently clean intern	ally?			YES	X	NC	)	
Does storage tank app	pear to be structu	rally sound?			YES	X	NC	)	
Dimensions	~70 ft . tall x ^	~13.95 ft in diameter	Total vo	lume	~80,	,000 ga	al .		
Is storage tank capaci	ty adequate?				YES	X	NC	)	
Base elevation	2134.5′ MSL	Top elevation	2204.5′ MSL	Overflow eleva	ition	2204	4.5′ M	SL	
Control type  US Filter D620i Telemetry to PSD Office and to the Kanawha Head BPS									
Does system have add	equate storage ta	nk level control?		YES	X	NO		NA	
Is storage tank teleme	etry being utilized	1?		YES	X	NO		NA	
High water settin	g	~66 ft.	Volume	~:	75,429	gallons	î		
Low water setting	g 	~46 ft.	Volume		2,571 (	gallons			
Does storage tank hav	ve a sampling tap	?			YES	X	NC	)	
Does storage tank hav	ve a proper acces	s ladder?			YES	X	NO		
Does storage tank hav	ve adequate fenci	ing?			YES	X	NO		
Is storage tank site pr	operly graded/dr	ained?			YES	X	NO		
Is the storage tank for	undation in good	condition?			YES	X	NO		
	<u>FINIS</u>	HED WATER ST	ΓORAGE (cor	ntinued)					
Is the storage tank ba	se interface with	the foundation prop	erly sealed or cau	ılked?	YES	X	NO		
Are the storage tank v	vents properly scr	eened?			YES	X	NO		

Adrian PSD Sanitary Survey		July 25 & 26, 2023		Page 24 of 43 Page			
is the storage tank hatch properly	y secu	red?		YES	X	NO	
Is the storage tank adequately se	cured	?		YES	X	NO	
Is there an adequate storage tank access road?						NO	
Does the storage tank have adequate overflow erosion protection?						NO	
Is the storage tank overflow prop	erly s	creened?		YES	X	NO	
Is the storage tank site free of exe fenced area?	cessiv	e/uncontrolled vegetation inside and/or ar	ound the	YES	X	NO	
Is the storage tank free of overhathreat to the tank?	ınging	trees or other items which could pose a da	ımage	YES	X	NO	
Is the storage tank free of any holes caused by damage or corrosion?				YES	X	NO	
Is the storage tank free of leaks and does not require immediate repair?				YES	X	NO	
Is the storage tank free of widesp coating has exhausted its useful li		area of severe oxidation and/or signs the early?	xterior	YES	X	NO	
Is the storage tank overall coating painting consideration for the en	-	ir or better condition and does not require nk at this time?	re-	YES	X	NO	
Is the storage tank coating free of preventative spot painting?	f smal	areas of concern that would require at lea	ist	YES	X	NO	
Does the system have adequate s	_	e tank corrosion control measures in place	?	YES	X	NO	
		FINISHED WATER STORAGE					
Name of Storage unit/facility	/	ST-009 / Helvetia Tank (un	nder constr	uction)			
Tank Location data will be added to the file.							
Type: Ground	d X	Elevated	В	elow gro	ound		
Construction material	Glas	s lined, bolted steel Date of constru	ction	2	2023		

Adrian PSD Sanitary Sur	rvey 🗆	July 25 & 26,	2023	[	Page 25 of 43 Pa				Pages
Date of last painting	g NA	NA Date of last cleaning ~2023							
Is storage tank sufficien	tly clean internally?					YES	X	NO	
Does storage tank appe	ar to be structurally so	ound?				YES	X	NO	
Dimensions	~23.3 ft . tall x ~19.68	ft in diameter	Total vo	olume _		~53,000 gal			
Is storage tank capacity	adequate?					YES	X	NO	
Base elevation	2865.0' MSL Top	elevation 288	8.3' MSL	Overflow	eleva	tion	2888	3.3′ M	SL
Control type New Telemetry to PSD Office by C.I. Thornburg									
		1			YES	X	NO		NA
Does system have adequ	uate storage tank leve	I control?			163		NO		IVA
Is storage tank telemetr	ry being utilized?				YES	X	NO		NA
High water setting	To be determined Volume To be determined								
Low water setting	To be de	etermined	Volume —	-	To be determined				
Does storage tank have a sampling tap?					YES	X	NO		
Does storage tank have a proper access ladder?				YES	X	NO			
Does storage tank have adequate fencing?				YES	X	NO			
Is storage tank site prop	perly graded/drained?					YES	X	NO	
Is the storage tank foun	dation in good condition	on?				YES	X	NO	
FINISHED WATER STORAGE (continued)									
Is the storage tank base	interface with the fou	ndation properly se	ealed or ca	ulked?		YES	X	NO	
Are the storage tank ver	nts properly screened?					YES	X	NO	
	Adria	n PSD - PWSID No.	WV 330491						

Is the storage tank hatch properly secured?	YES	X	NO					
Is the storage tank adequately secured?	YES	X	NO					
Is there an adequate storage tank access road?	YES	X	NO					
Does the storage tank have adequate overflow erosion protection?	YES	X	NO					
Is the storage tank overflow properly screened?	YES	X	NO					
Is the storage tank site free of excessive/uncontrolled vegetation inside and/or around the fenced area?	YES	X	NO					
Is the storage tank free of overhanging trees or other items which could pose a damage threat to the tank?	YES	X	NO					
Is the storage tank free of any holes caused by damage or corrosion?	YES	X	NO					
Is the storage tank free of leaks and does not require immediate repair?	YES	X	NO					
Is the storage tank free of widespread area of severe oxidation and/or signs the exterior coating has exhausted its useful life span?	YES	X	NO					
Is the storage tank overall coating in fair or better condition and does not require repainting consideration for the entire tank at this time?			NO					
Is the storage tank coating free of small areas of concern that would require at least preventative spot painting?			NO					
Does the system have adequate storage tank corrosion control measures in place?			NO					
Corrosion control is provided by Buckhannon.								
FINISHED WATER STORAGE								
Name of Storage unit/facility ST-010 / Pickens Tank (under construction)								
Tank Location data will be added to the file.								
Type: Ground X Elevated Be	elow gro	und						
Construction material Glass lined, bolted steel Date of construction 2023								

Adrian PSD Sanitary Survey

Page 26 of 43 Pages

Date of last paintin	gNA	Date of last cleaning		~2023					
Is storage tank sufficien	itly clean internally?			YES	X	NO			
Does storage tank appe	ear to be structurally sound?			YES	X	NO			
Dimensions	~27.9 ft . tall x ~19.76 ft in diamete	er Total volume	~64,000 gal						
Is storage tank capacity	adequate?			YES	X	NO			
Base elevation	3120.0' MSL Top elevation	3147.9' MSL Overflow	eleva	tion	3147	7.9′ MSL			
Control type	New Telemet	try to PSD Office by C.I. Thorn	burg						
Does system have adeq	uate storage tank level control?	Ĭ	YES	X	NO	N	1A		
ls storage tank telemeti	ry being utilized?	Î	YES	X	NO	N	IA		
High water setting	To be determined	Volume	To be determined						
Low water setting	To be determined	Volume	To be determined						
Does storage tank have	a sampling tap?			YES	X	NO			
Does storage tank have	a proper access ladder?			YES	X	NO			
Does storage tank have	adequate fencing?			YES	X	NO			
Is storage tank site properly graded/drained?				YES	X	NO			
Is the storage tank foun	dation in good condition?			YES	X	NO			
	FINISHED WATER S	TORAGE (continued	)						
Is the storage tank base	interface with the foundation pro	perly sealed or caulked?		YES	X	NO			
Are the storage tank ve	nts properly screened?			YES	X	NO			
	Adrian PSD - PWS	ID No. WV 3304911			-				

Adrian PSD Sanitary Survey

Page 27 of 43 Pages

Is the storage tank hatch properly secured?	YES	X	NO	
Is the storage tank adequately secured?	YES	X	NO	
Is there an adequate storage tank access road?	YES	X	NO	
Does the storage tank have adequate overflow erosion protection?	YES	X	NO	
	7450	37		
Is the storage tank overflow properly screened?	YES	X	NO	
Is the storage tank site free of excessive/uncontrolled vegetation inside and/or around the				
fenced area?	YES	X	NO	
Is the storage tank free of overhanging trees or other items which could pose a damage	YES	X	NO	
threat to the tank?	163	Λ	140	
Is the storage tank free of any holes caused by damage or corrosion?	YES	х	NO	
is the storage tank free or any noies caused by damage or corrosion:	163	Λ	NO	
Is the storage tank free of leaks and does not require immediate repair?	YES	X	NO	
is the storage talk free or leaks and abes not require immediate repair.	123	1		
Is the storage tank free of widespread area of severe oxidation and/or signs the exterior		X	NO	
coating has exhausted its useful life span?	YES			
Is the storage tank overall coating in fair or better condition and does not require re-		X	NO	
painting consideration for the entire tank at this time?	YES	Λ	110	
Is the storage tank coating free of small areas of concern that would require at least	YES	х	NO	
preventative spot painting?	TES	Λ	NO	
Does the system have adequate storage tank corrosion control measures in place?	YES	X	NO	
		21		
Corrosion control is provided by Buckhannon.				

Page 28 of 43 Pages

#### PUMPS / PUMP FACILITIES AND CONTROLS

#### Pump Name / Use

Adrian PSD Sanitary Survey

#### 1. PF 001 - Hinkleville BPS:

Housed in a concrete block building with a locked access door. Dual alternating Grundfos CR-64 pumps operate up to 16 hours per day, to transfer water from Buckhannon to the French Creek Tank site. Pumps are rated at 350 gpm @ 210' TDH, driven by 25 HP, 3-phase Baldor motors, rated at 230/460 volts, 59/29.5 amps, 3525 rpm. Inlet and outlet pressures noted to be 75 psi and 175 psi (dynamic) with one pump running at a measured pumping rate of 222 gpm. Current operating times reportedly ~16 hrs./day for a total transfer of 213,000 gpd. BPS

Page	29	of 43	Pages	
rage	23	01 40	1 ages	

Adrian	PSD	Sanitary	Survey
Aurian	$r_{3\nu}$	Sallitally	Juivey

July 25 & 26, 2023

equipped with meter to document flow rates and is telemetered to the PSD office and the French Creek Tank site. Will be upgraded to 400 gpm under the current upgrading project.

	Locational data is on file.												
Displacement Pump:	Reciprocating	Rotary X	Other										
Centrifugal Pump:	Horizontal X	Submersible	Other										
Pump Capacity	~150 gpm (actual pumping rat	re)											
Is pump working properly	?		YES	X	NO	NA							
Does system maintain a s	pare pump or are spare parts a	YES	X	NO	NA								
	Dual pump	s are provided.	0										
Does the system have suf	ficient telemetry/communicati	on/alarms for this pump?	YES	X	NO	NA							
Does pump have adequat	e capacity?		YES	X	NO	NA							
Is pump properly designe	d/maintained?		YES	X	NO	NA							
Is pump location free of fl	looding potential?		YES	X	NO	NA							
Is pump location properly	s pump location properly drained?												
Is pump location properly	pump location properly secured?												
Does pump location provi	ide standby/backup emergency	power?	YES	X	NO	NA							

### **PUMPS / PUMP FACILITIES AND CONTROLS**

Pump Name / Use

### 2. PF 002 - Beechtown BPS:

This BPS is housed in a concrete block building with a locked access door. Dual alternated Grundfos CR-32 pumps operate an average of 16 hours per day to transfer water from the French Creek tank site to the Rock Cave tank site. The pumps are driven by 20 HP, 3-phase Baldor motors, rated at 230/460 volts, 49/24.5 amps, 3525 rpm. The pumping rate is ~140 gpm (1 pump) or 200 gpm (2 pumps). The actual pumping rate observed is ~158 gpm. Inlet and outlet pressures of 70 psi and 210 psi are noted with one pump running. The BPS has a meter to document flow rates and is telemetered to the Rock Cave Tank site and to the PSD office. Will be upgraded to 300 gpm under the current upgrading project. A feeder calibration chart for this BPS is provided in Attachment C indicating a minimal chlorine dose rate of only about 0.04 ppm.

July 25 & 26, 2023

YES

Χ

NO

NA

Page 30 of 43 Pages

Adrian PSD Sanitary Survey

 $\Box$ 

Does pump location provide standby/backup emergency power?

### **PUMPS / PUMP FACILITIES AND CONTROLS**

Pump Name / Use 3. PF 003 - Grand Camp BPS (formerly called the Gould Road BPS):

This BPS is housed in a prefabricated EFI building, enclosed by a security fence and a locked entrance gate. Dual alternated Grundfos CR-16 pumps, rated at 42 gpm @ 449' TDH are driven by 7.5 HP 3-phase Baldor motors, 203/230 volts, 19/18 amps and 3450 rpm. The average pumping rate is 42 gpm against observed static inlet and outlet pressures of 138 psi and 225 psi. The BPS is telemetered to the Grand Camp Tank and runs about 8 hours/day to maintain the Grand Camp Tank water level between 14 and 30 feet. The BPS has a meter to document water flow transfer rates. This BPS has a booster chlorinator, an LMI feeder, rated at 0.68 gph and 250 psi. Data was taken on the chlorinator during the survey visit, and a feeder chart is provided in Attachment C, indicating a chlorine dose rate of 0.51 ppm.

### Location data is on file.

Adrian PSD Sanitary Survey	☐ July 25 & 26, 2023		Pa	age 31 of	43 Pages
Displacement Pump:	Reciprocating Rotary X	Other			
Centrifugal Pump:	Vertical Turbine X Submersible	Other			
Pump Capacity	~42 gpm				
Is pump working properly?		YES	X	NO	NA
Does system maintain a spare	e pump or are spare parts available for this pump?	YES	X	NO	NA
	Dual pumps are provided.				
Does the system have sufficient	ent telemetry/communication/alarms for this pump?	YES	X	NO	NA
Does pump have adequate ca	apacity?	YES	X	NO	NA
Is pump properly designed/n	naintained?	YES	X	NO	NA
Is pump location free of flood	ding potential?	YES	X	NO	NA
Is pump location properly dra	ained?	YES	X	NO	NA
Is pump location properly sec	cured?	YES	X	NO	NA
Does pump location provide	standby/backup emergency power?	YES	X	NO	NA
	PUMPS / PUMP FACILITIES AND CONT	<u>rols</u>			
gate. Dual alternated 208/230 volts, 38/36 and outlet pressures of 58 pruns ~10 hours per day Pulsafeeder chlorinato dose rate of about 0.5	4. PF 004 – Carter BP a prefabricated EFI building, enclosed by a securi d Grundfos CR-4 pumps, are driven by 15 HP 3-p mps and 3450 rpm. The actual pumping rate was si and 148 psi. The BPS is telemetered to the Na to maintain a water level in the tank at between 17 or rated at 0.58 gph and 250 psi, and is operated to ppm. This BPS will be upgraded to 120 gpm to One Grundfos pump was recently replaced with Location data is on file.	ty fence a hase Balc noted to b tural Bridç 7.5 and 24 o provide under the	lor mot be 75 g ge Tan l feet. a calcu <b>curre</b> i	tors, rate pm at in k, and n This BP ulated ch nt upgra	ed at let and ormally S has a llorine
Displacement Pump:	Reciprocating Rotary X	Other			

Adrian PSD Sanitary Survey		July 25 & 26, 2023		Page 3	2 of 43 Pages							
Centrifugal Pump:	Vertical Turbine	X Submersible	Other									
Pump Capacity ~10	02 gpm (2 pumps)											
Is pump working properly?			YES	X NO	NA							
Does system maintain a spare	Does system maintain a spare pump or are spare parts available for this pump?											
Does the system have sufficien	•	mps are provided. ication/alarms for this pur	mp? YES	X NO	NA							
Does pump have adequate cap	pacity?		YES	X NO	NA							
Is pump properly designed/ma	nintained?		YES	X NO	NA							
Is pump location free of floodi	ng potential?		YES	X NO	NA							
Is pump location properly drai	ned?		YES	X NO	NA							
Is pump location properly secu	red?		YES	X NO	NA							
Does pump location provide st	andby/backup emerg	ency power?	YES	X NO	NA							
<u>,                                    </u>	UMPS / PUMP	FACILITIES AND CO	NTROLS									
Pump Name / Use  5. PF 005 – Wilsontown BPS:  This BPS is housed in a prefabricated EFI building, enclosed by a security fence and a locked entrance gate. Dual alternated Grundfos CR-8 pumps, rated at 42 gpm @ 531' TDH are driven by 10 HP, 3-phase Baldor motors, rated at 208/230 volts, 27/25 amps and 3450 rpm. The actual pumping rate was noted to be 47 gpm at inlet and outlet pressures of 175 psi and 275 psi. The BPS is telemetered to the Salem Ridge Tank, and draws from the Rock Cave tank about 4 to 6 hours per day (average about 5 hrs./day) to maintain water levels in the Salem Ridge Tank at between 13' and 36.5'. This BPS has a Chem Tech 200 chlorinator rated at 10 gpd and 150 psi, and is operated to provide a calculated chlorine dose rate of about 0.2 ppm.  Location data is on file.												
Displacement Pump:	Reciprocating	Rotary X	Other									
Centrifugal Pump:	Vertical Turbine	Submersible	Other									

Adrian PSD Sanitary Survey		July 25 & 26, 2023	□ Page 33 of 43 Pages									
Pump Capacity	~47 gpm	<u>_</u>										
Is pump working properly?			YES	X	NO	NA						
Does system maintain a spa		parts available for this pump?	YES	X	NO	NA						
Does the system have suffic	•	unication/alarms for this pump?	YES	X	NO	NA						
Does pump have adequate	YES	X	NO	NA								
Is pump properly designed,	YES	X	NO	NA								
Is pump location free of flo	YES	X	NO	NA								
Is pump location properly o	YES	X	NO	NA								
Is pump location properly s	ecured?		YES	X	NO	NA						
Does pump location provid	e standby/backup eme	ergency power?	YES	X	NO	NA	_					
	PUMPS / PUM	P FACILITIES AND CONTR	OLS									
Pump Name / Use		6. PF 006 – Arlington BP										
gate. The BPS has 3 from the Rock Cave T serve about 50 custo amps and 3450 rpm. I and 3 are CR-16 and	This BPS is housed in a prefabricated EFI building, enclosed by a security fence and a locked entrance gate. The BPS has 3 pumps. Pump #1 is a CR-8 Grundfos unit, rated at 42 gpm @264' TDH. It draws from the Rock Cave Tanks and operates continuously to maintain a line pressure on the water system to serve about 50 customers. It is driven by a 5 HP, 3-phase Baldor motor, rated at 208/230 volts, 13/12 amps and 3450 rpm. Inlet and outlet pressures were noted to be 195 and 245 psi, respectively. Pumps 2 and 3 are CR-16 and CR-8 units operated intermittently as needed. Each pump is rated at 84 gpm and 290' TDH and are driven by 10 HP, 3-phase motors, rated at 208/230 volts, 27/25 amps and 3450 rpm.  Booster chlorination is not provided at thus BPS.											
	Loca	ition data is on file.										
Displacement Pump:	Reciprocating	Rotary X	Other									
Centrifugal Pump:	Vertical Turbine	X Submersible	Other									
Pump Capacity	~42 gpm	_										

Adrian PSD Sanitary Survey	Adrian PSD Sanitary Survey    July 25 & 26, 2023											
Is pump working properly?			YES	X	NO	NA						
Does system maintain a spar		parts available for this pump? pumps are provided.	YES	X	NO	NA						
Does the system have suffici		nunication/alarms for this pump?	YES	X	NO	NA						
Does pump have adequate c	apacity?		YES	X	NO	NA						
Is pump properly designed/n	YES	X	NO	NA								
Is pump location free of floor	YES	X	NO	NA								
Is pump location properly dr	s pump location properly drained?											
Is pump location properly se	s pump location properly secured?											
Does pump location provide	standby/backup em	ergency power?	YES	X	NO	NA						
	PUMPS / PUM	1P FACILITIES AND CONTRO	OLS									
gate. Dual, alternated phase Baldor motors, ra were 50 psi and 190 ps about 4 hours/day to tra levels in the tank of bety and 150 psi. A chloring	Pump Name / Use  7. PF 007 – Horseshoe Bend BPS:  This BPS is housed in a prefabricated EFI building, enclosed by a security fence with a locked entrance gate. Dual, alternated CR-10 Grundfos pumps, rated at 53 gpm and 482' TDH are driven by 10 HP, 3-phase Baldor motors, rated at 230/460 volts, 24/12 amps and 3525 rpm. Static inlet and outlet pressures were 50 psi and 190 psi, respectively. The BPS is telemetered to the Selbyville tank and normally runs about 4 hours/day to transfer water from the Natural Bridge Tank to the Selbyville Tank to maintain water levels in the tank of between 18' and 36'. The BPS is equipped with a Chem Tech feeder, rated at 10 gpd and 150 psi. A chlorine solution is made by mixing two 81-ounce jugs of 7.5% bleach into 30 gallons of solution. At a feeder setting of 60% a chlorine dose rate of ~0.25 ppm is provided.											
	Loc	ation data is on file.										
Displacement Pump:	Reciprocating	Rotary X	Other									
Centrifugal Pump:	Vertical Turbine	X Submersible 0	Other									
Pump Capacity	~53 gpm	_										
Is pump working properly?			YES	X	NO	NA						

Adrian PSD Sanitary Survey		July 2	25 & 26,	2023			Р	Page 35 c	of 43 Pa	ges	
Does system maintain a spare p						YES	X	NO	I	IA	
	Dual	pumps	s are p	provided.							
Does the system have sufficien	t telemetry/comn	nunicatio	n/alarn	ns for this pu	mp?	YES	X	NO	N	IA	
Does pump have adequate cap	acity?					YES	X	NO	N	IA	
Is pump properly designed/ma	intained?					YES	X	NO	N	IA	
Is pump location free of flooding	Is pump location free of flooding potential?								N	IA	
Is pump location properly drain	Is pump location properly drained?								N	IA	
Is pump location properly secu	red?					YES	X	NO	N	IA	
Does pump location provide sta	oes pump location provide standby/backup emergency power?								N	IA	
PUMPS / PUMP FACILITIES AND CONTROLS											
Pump Name / Use		\$	R. PF	008 – Alton	BPS:						
This BPS is housed in a gate. Dual, alternated C phase Baldor motors, rate Alexander Tank, and the E Alexander Tank. The BF psi. Stock solution is massumed feeder setting of survey visit, static into	R-15 Grundfos ped at 230/460 vo BPS is operated PS is equipped whixed by adding to 100% a chlorine	ts, 34/1 ~5.5 hou ith a chlow o 81-ou dose ra	ated at 7 amps urs per orine bo unce jug ate of ~0	90 gpm and and 3525 rp day, to trans coster, an Li gs of bleach 0.75 ppm wo	1463' T pm. Th sfer an a MI feed into 30 ould be	DH are e BPS average er ratee gallon expect	driven is tele of 3 d at 1 s of s ed. E	en by 15 emetere 0,000 g .3 gph a colution. During th	HP, 3 ed to th pd to th and 300 At an ne rece	- le he 0	
	Loc	ation c	data is	on file.							
Displacement Pump:	Reciprocating		ا	Rotary	] o	ther					
Centrifugal Pump:	Vertical Turbine	X	Subm	ersible	] o	ther					
Pump Capacity	~90 gpm	_									
is pump working properly?						YES	X	NO	N	IA	
Does system maintain a spare p					9?	YES	X	NO	N	IA	
	Dual	pumps	s are p	provided.							
	Δdrian I	PSD - P\\/	SID No	WV 3304911							

Adrian PSD Sanitary Survey	☐ July	25 & 26, 2023		Pa	ge 36 of 4	13 Pages						
Does the system have sufficie	nt telemetry/communicati	on/alarms for this pump?	YES	X	NO	NA						
Does pump have adequate ca	pacity?		YES	х	NO	NA						
Is pump properly designed/m	aaintained?		YES	X	NO	NA						
Is pump location free of flood	YES	X	NO	NA								
Is pump location properly dra	ained?		YES	X	NO	NA						
Is pump location properly sec	cured?		YES	X	NO	NA						
Does pump location provide	standby/backup emergency	y power?	YES	X	NO	NA						
PUMPS / PUMP FACILITIES AND CONTROLS												
This BPS is housed in a backup generator which any power outages. Thi	Pump Name / Use  9. PF 009 – Indian Camp BPS:  This BPS is housed in a below-grade USEMCO prefabricated vault on the Grand Camp Tank site, with a backup generator which is programmed to operate the BPS for 1-hour every Tuesday, as well as during any power outages. This 20-70 gpm BPS draws from the Grand Camp Tank to maintain a constant water pressure to about 51 customers in the Indian Camp service area.											
	Location	data is on file.										
Displacement Pump:	Reciprocating	Rotary X	Other									
Centrifugal Pump:	Vertical Turbine X	Submersible	Other									
Pump Capacity	20 to 70 gpm											
Is pump working properly?			YES	X	NO	NA						
Does system maintain a spar			YES	X	NO	NA						
Does the system have sufficion		os are provided. ion/alarms for this pump?	YES	X	NO	NA						
Does pump have adequate ca	apacity?		YES	X	NO	NA						
Is pump properly designed/n	naintained?		YES	X	NO	NA						

Adrian PSD Sanitary Survey	July 25 & 26, 2023		Pa	ge 37 of	43 Pages							
Is pump location free of flooding potential	?	YES	X	NO	NA							
Is pump location properly drained?		YES	X	NO	NA							
Is pump location properly secured?		YES	X	NO	NA							
Does pump location provide standby/back	YES	X	NO	NA								
Pump Name / Use  10. PF 010 – Kanawha Head BPS:  This 50 gpm BPS draws water from the Rock Cave Tank to transfer water to the Cleveland Mountain Tank. Inlet and outlet static pressures were noted to be about 123 psi and 235 psi, respectively. Booster												
chle	prination is also provided if needed.	200 poi, i	оороо	arony.	2000101							
Location data is on file.												
Displacement Pump: Recipro	cating Rotary X	Other										
Centrifugal Pump: Vertical To	urbine X Submersible	Other										
Pump Capacity ~50 gpm												
Is pump working properly?		YES	X	NO	NA							
Does system maintain a spare pump or are	spare parts available for this pump?	YES	X	NO	NA							
ı	Dual pumps are provided.	511										
Does the system have sufficient telemetry,	/communication/alarms for this pump?	YES	X	NO	NA							
Does pump have adequate capacity?		YES	X	NO	NA							
Is pump properly designed/maintained?		YES	X	NO	NA							
Is pump location free of flooding potential	?	YES	X	NO	NA							
Is pump location properly drained?		YES	X	NO	NA							
		TV CO										

Adrian PSD Sanitary Survey		July 25 & 26, 2023		Page 38 of 43 Pages					
Is pump location properly secure			YES	X	NO	NA			
Does pump location provide star	n <b>dby/b</b> acku	p emergency power?	YES	X	NO	NA			
PL	PUMPS / PUMP FACILITIES AND CO								

	Pump Name / Use	11. PF 011	. <b>– М</b> е	etzner H	ollow	BPS: (ui	nder co	onst	truct	ion)		
	This 25 gpm BPS details of this BPS	will draw from the Alexa S will be added as it be	ander comes	Tank to s available	erve a	pproxim BPS ele	ately 6 evation	new will	cust be ~	tomers. 2330.0' <b>I</b>	Other MSL.	
		Location da	ta wi	ll be ad	lded t	o the f	ile.					
	Displacement Pump:	Reciprocating		F	Rotary	X	Othe	r [				
	Centrifugal Pump:	Vertical Turbine	Х	Subme	ersible	į	Othe	r 🗌				
	Pump Capacity	~25 gpm	_									
ls p	oump working properl	y?					Y	ES	X	NO	NA	
Do	s system maintain a spare pump or are spare parts available for this pump?								X	NO	NA	
		Dual pւ	ımps	will be	prov	ided.	ř					
Do	es the system have su	fficient telemetry/comm	unicati	ion/alarm	s for th	is pump?	? Y	ES	X	NO	NA	
Do	es pump have adequa	te capacity?					Y	ES	X	NO	NA	
ls þ	oump properly designe	ed/maintained?					Υ	ES	X	NO	NA	
ls p	oump location free of	flooding potential?					Y	ES	X	NO	NA	
ls p	oump location properl	y drained?					Y	ES	X	NO	NA	
ls p	pump location properly secured?							ES	X	NO	NA	
Do	es pump location prov	s pump location provide standby/backup emergency power?									NA	
		BPS will be equippe	ed wit	th a prop	oane b	ackup (	genera	tor				

### **PUMPS / PUMP FACILITIES AND CONTROLS**

	Pump Name / Use 12. PF 012 – Health Clinic BPS: (under construction)								
	This 50 gpm BPS will draw from the Alexander Tank. Other details of this BPS will be added as it becomes available. The BPS elevation will be ~2314.0' MSL.								
		Location data	will be added to the fi	le.					
	Displacement Pump:	Reciprocating	Rotary X	Other					
	Centrifugal Pump:	Vertical Turbine X	Submersible	Other					
	Pump Capacity	~50 gpm							
ls p	oump working properly	?		YES	X	NO	NA		
Do	es system maintain a s	pare pump or are spare part	s available for this pump?	YES	X	NO	NA		
		Dual pump	os will be provided.						
Do	es the system have suf	ficient telemetry/communic	ation/alarms for this pump?	YES	X	NO	NA		
Do	es pump have adequat	e capacity?		YES	X	NO	NA		
ls p	oump properly designe	d/maintained?		YES	X	NO	NA		
s p	oump location free of f	looding potential?		YES	X	NO	NA		
s p	oump location properly	v drained?		YES	X	NO	NA		
•									
s p	oump location properly	secured?		YES	X	NO	NA		
٦٥.	es numn location provi	ide standhy/hackun emergei	ncv power?	YES	X	NO	NA		

BPS will be equipped with a propane backup generator.

Adrian PSD	Sanitary	Survey
------------	----------	--------

July 2	5 &	26,	2023
--------	-----	-----	------

Page	40	٥f	43	Pages	÷
rage	+v	O1	70	rage	3

### **PUMPS / PUMP FACILITIES AND CONTROLS**

Pump	Name ,	/ Use

### 13. PF 013 - Helvetia BPS: (under construction)

This 70 gpm BPS will draw from the new Helvetia Tank, to transfer water to the new Pickens Tank. It will be installed on the new Helvetia Tank site. Other details of this BPS will be added as it becomes available. The BPS elevation will be ~2858.0' MSL.

	Location data w	ill be added to the f	ile.				
Displacement Pump:	Reciprocating	Rotary X	Other				
Centrifugal Pump:	Vertical Turbine X	Submersible	Other				
Pump Capacity	~70 gpm						
Is pump working properly?			YES	X	NO	NA	
Does system maintain a spai			YES	X	NO	NA	
Does the system have suffici		s will be provided. ion/alarms for this pump?	YES	X	NO	NA	
Does pump have adequate c	apacity?		YES	X	NO	NA	
Is pump properly designed/r	maintained?		YES	X	NO	NA	
Is pump location free of floo	ding potential?		YES	X	NO	NA	
Is pump location properly dr	ained?		YES	X	NO	NA	
Is pump location properly se	cured?		YES	X	NO	NA	
Does pump location provide	standby/backup emergenc	y power?	YES	X	NO	NA	

BPS will be equipped with a propane backup generator.

### **MONITORING / REPORTING / DATA VERIFICATION**

Is the system using proper chlorine residual test kits and reagents?	YES	X	NO	NA	
Use Hach CN-66 test kit with DPD reagent, 0.0-3.5 ppm, in 0.1 ppm increments between 0.0 and 3.0 ppm.					
Is the system using proper monitoring equipment and/or reagents?	YES	X	NO	NA	
Is monitoring equipment properly calibrated?	YES	X	NO	NA	
Are monthly operational reports completed/submitted as required?	YES	X	NO	NA	
Are disinfectant residuals properly recorded/reported on the MOR's?	YES	X	NO	NA	
Is the system conducting all required finished water compliance sampling (RTCR,					
LCR, DBP, Phs II/V, etc.) Monitoring for RTCRs, L&C and DBPs.	YES	X	NO	NA	
Has all testing since the last sanitary survey reflected all contaminates below					
Primary MCL's?	YES	X	NO	NA	
Has all testing since the last sanitary survey reflected all contaminates below Secondary MCL's?	YES		NO	NA	х
Does the system have an adequate Lead & Copper sampling plan?	YES	X	NO	NA	
12-page L&C Plan approved on 12/27/2022.	ļ				
Has the system submitted Annual/Triennial lead and copper sample plan update?	YES	X	NO	NA	
1630 of 2248 likely do not contain lead service lines. All Pb and Cu below 90 <sup>th</sup> % AL for 8/18/2020 samples.					
Does the system have an adequate DBP sampling plan?	YES	X	NO	NA	
Two sample sites: Gains CR 40, and CR 46-Helvitia End-of-Line. LRAA for TTHMs and HAA5s All below 80 ppb THM, and 60 ppb HAA5, OK.					
Does the system have an adequate approved RTCR sampling plan?	YES	X	NO	NA	
6/mo. from 25 sample sites. All TC-A for past 2 years, OK.					
Have all CFE and IFE turbidities been below the required limits in the last 12 months?	YES		NO	NA	Х
Is the system continuously monitoring CFE turbidity or taking grab samples every 4 hours as required?	YES		NO	NA	Х
Is the system IFE turbidity continuously monitored and recorded every 15 minutes?			NO	NA	Х

### **WATER SYSTEM MANAGEMENT / OPERATION**

Is the system free of monitoring/reporting violations since the last sanitary survey?			NO	NA	
Are all records maintained properly and available for review?			NO	NA	
Does the system maintain equipment records that include information on installation, replacement, and maintenance?			NO	NA	
If needed were public notices completed and distributed as required?			NO	NA	
Does the system income exceed expenses?			NO	NA	
Income / Revenue for previous year \$1,482,4	57*				2
Expenses for previous year \$1,482,4.  \$1,230,75					
Expenses for previous year \$1,230,7		X	NO	NA	
Expenses for previous year \$1,230,7.  *As reported in the 6/30/2022 PSC Annual Report.	35*	X X	NO NO	NA NA	

### SYSTEM EMPLOYEES / PERSONNEL

Employee / Personnel Name	Title
Paul Spencer	PSD Chair
Carolyn Douglas	PSD Vice-Chair
Kelly Arnold	PSD Secretary /Treasurer
Norma Woody	PSD Manager
Alicia Wright	PSD Assistant Manager.
(see following section for operators)	

### **WATER SYSTEM MANAGEMENT / OPERATION (Continued)**

PWS Name:	Adrian Public Service District
PWSID No.:	WV3304911
PWS Mailing Address:	P.O. Box 87, French Creek , WV 26218
PWS Physical Address:	
PWS Office Phone:	(304) 924-6107
PWS Office Fax:	(304) 924-7024
PWS Plant Phone:	NA
PWS Plant Fax:	NA
Email Address - (contact):	adrianpsd@outlook.com
Cell phone number - (contact):	304-644-6109 (cell) Eric Brunn
Cell phone number - (contact):	

### **OPERATOR COMPLIANCE WITH STATE REQUIREMENTS**

### LIST OF OPERATORS

Operator Name	Title / Class	WVOP Number	Expiration Date
Eric Brunn	Chief Operator /DW-1	10018	1/31/2024
Norma Woody	DW-WD	32639	5/31/2025
Kelly Arnold	DW-4	00200	1/31/2024
Alicia Wright	DW-OIT	34101	Took 1D test
Jared Bentley	Applied for OIT		
Ed Tenney	Service Tech	NA	NA

Is the chief operator properly certified for the system?

YES X NO NA

Has the chief water operator had the required chief water operator training?

YES NO X NA

\*Mr. Brunn needs to take the Chief Operator Course.

YES X NO NA

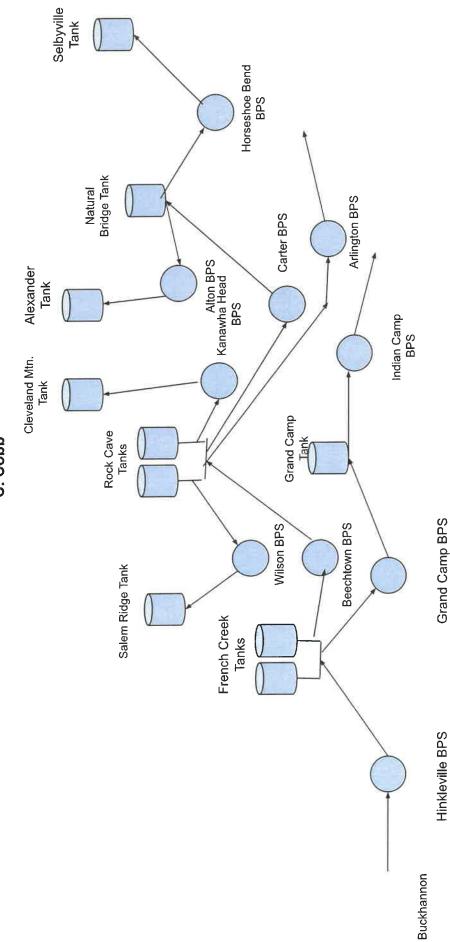
Are the operators utilized by the system at a proper certification level?

YES X NO NA

Is there a proper number of certified water operators on staff to sufficiently operate the system?

Jared Bentley will be working toward a Class WD license.

### Water Distribution System Schematic Adrian Public Service District PWSID #3304911 July 2023 C. Cobb



# Additional Comments:

- 1. Indian Camp BPS maintains constant pressure to serve ~51 customers.
- Arlington BPS maintains ~235 psi discharge pressure to serve ~50 customers in the Heaston Ridge Subdivision.
  - BPSs are telemetered to the tanks they fill and tanks and BPSs are telemetered to the PSD office.
- The new Helvetia and Pickens Tanks, and the new Metzner Hollow, Health Clinic and Helvetia BPSs will be added to this schematic in the future, after being placed into service. 2, 8, 4,

### Sanitary Survey Acknowledgment Form

**ATTACHMENT B** 

•	System Na	ıme:	Adrian PSD			
	PWS	D #:	3304911	and the second		
Sa Co	anitary Su nducted D	rvey ate:	7/25 & 26/2023			
discussion of water system deficiencies o	the findings understand discovered, v	took pl s a writ vill be s	d on the above date for lace at the conclusion of tten letter from the OEH sent to the public water The letter will be consi	of the sanit IS-EED re system wi	ary survey ar presentative, thin 30 days o	nd the public with the of the date the
response for notification. The able to connected actions and the source actions are source actions.	any signification and signification and signification and signification and signification plan will appense. Fail	int defici espons difficant diaddition be require to re-	tands and acknowledge ciencies identified withing se shall include the pub deficiencies cited withing onal time beyond 120 duired within 120 days oprovide a written resport applicable, shall result	n 30 days of the water some 120 days lays will be fithe date on the within	of the official ystems intent or if addition endeded, a dof notification 30 days, or a	date of as to if they will al time will be etailed i, in addition to detailed
			day response required		Yes	No 🔀
Nater Syste	m Represen	tative				
Name:	Eri	c B	runn			
Title:			Operator			-
	Enic	B	run		7/26	/23
		Signa	ture		Da	te
WV DHHR BI	PH OEHS E	ED Re	presentative Conduct	ing Sanita	ary Survey	
Name:	Craig R. Co	bb				
Title:	District Eng	ineer			41	
	Craig	R. Signal	Colb- ture		7/26/a	2023 Ite

Chemical Feeder Calibration

C. Cobb, WVBPH/EED

16.32 150 Assumptions: Feeder rated at: Chemical concentration: Water production rate: Feeder Speed Setting:

**−** α α 4

Chemical Dose

Shemical

Feed Rate Measured

Feeder Stroke Setting

ml/min

**ppm** 0.00 0.03 0.06 0.10 0.13 0.16

Dose 1bs/day 0.00 0.06 0.11 0.17 0.23

Rate gpd 90.00 3.26 6.53 9.79 13.06 16.32

0.00 8.58 17.16 25.74 34.32 42.90

% 0 20 40 60 100

Chemical

Feeder Setting

Dose

mdd

%

0.00 0.03 0.06 0.10 0.13

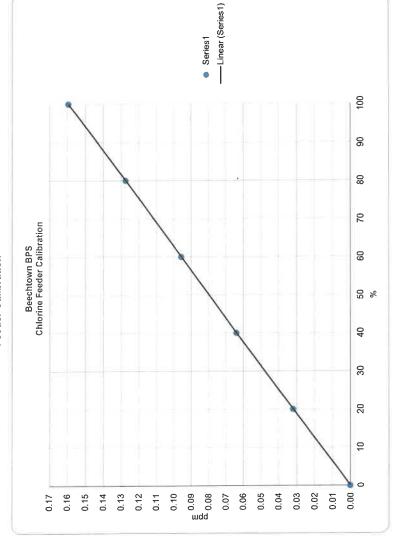
gpm

gpd (max) lbs/gal

ATTACHMENT C

LMI feeder rated at 0.68 gph and 250 psi 2-81 oz. jugs of 7.5% Clorox into 45 gal of solution Beechtown BPS reported pumping rate

### Feeder Calibration



1 LMI Feeder rated at 0.68 gph (16.32 gpd).

2 At a feeder setting of 26%, a chlorine dose rate of ~0.04 ppm would be expected.

C. Cobb & E. Brunn 7/25/2023

	er,	

Chemical Feeder Calibration

C. Cobb, WVBPH/EED

16.32 0.03166 <del>2</del> ₹ Assumptions: Feeder rated at: Chemical concentration: Water production rate: Feeder Speed Setting:

− 2 € 4

Chemical Dose

Measured Feed Rate

ml/min

| Feeder | Stroke | Setting | % % 0 0 20 40 60 80 100 100

**ppm** 0.00 0.20 0.41 0.61 0.82 1.02

Chemical Dose Ibs/day 0.00 0.10 0.21 0.31 0.41

Rate gpd 0.00 3.26 6.53 9.79 13.06

0.00 8.58 17.16 25.74 34.32 42.90

Chemical

Dose ppm 0.00 0.20 0.41 0.61 0.82

Setting % % 0 20 20 40 60 80 100 100

gpd (max) lbs/gal gpm

LMI feeder rated at 0.68 gph and 250 psi 3-81 oz. jugs of 7.5% Clorox into 25 gal of solution Grand Camp BPS reported pumping rate

ATTACHMENT C

## Feeder Calibration

	Series1 —Linear (Series1)	0
ion		02
Grand Camp BPS Chlorine Feeder Calibration		-8
Srand Car ine Feede		8
Chlor		0
11		8
		8
		5
1.10	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.10

1 LMI Feeder rated at 0.68 gph (16.32 gpd). 2 At a feeder setting of 50%, a chlorine dose rate of ~0.51 ppm would be expected.

C. Cobb & E. Brunn 7/25/2023