SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER

Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Report for the Month of: January 2020

I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.

Operator's Signature: Luis A Lopez

Certificate No. & Grade: WS0014096, B

Date: February 10, 2020

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	85	Number of 4-hour periods when plant was off-line:	101
Number of readings above 0.10 NTU:	5	Number of 4-hour periods when plant was on-line but turbidity data was not collected:	0
Number of readings above 0.3 NTU:	0		
Number of readings above 0.5 NTU:	0	Number of days when plant was on-line but individual filter turbidity data was not collected:	0
Number of readings above 1.0 NTU:	0		
Maximum allowable turbidity level:	0.3	Number of days with readings above 1.0 NTU:	0 (2)
Percentage of readings above this limit:	0.0 % (1)	Number of days with readings above 5.0 NTU:	0 (3)

Bin Class: 2 Crypto Credit Required: 4.0 (7A) Crypto Credit Achieved: 4.5 (7B) Bin 3&4 Credits: 1.0 (7C)

Watershed Protection:	0.0	Conventional Treatment:	3.0	Second Stage Filtration:	0.0
Bank Filtration:	0.0	Enhanced Filter Performance:	0.5	UV:	1.0
Presedimentation with Coagulation:	0.0	Bag and Cartridge Filtration:	0.0	Ozone, Chlorine Dioxide:	0.0
Two-Stage Lime Softening:	0.0	Membrane Filtration:	0.0	Perform. Demonstration:	0.0

Number of days with low inactivation (including UV) for no more than 4.0 consecutive hours:	0	Average log inactivation (including UV) for Giardia:	4.09
		Average log inactivation) (including UV) for viruses:	41.47
Number of days with low inactivation (including UV) for more than 4.0 consecutive hours:	0 (4)	Number of days when profiling data was not collected:	0
		Number of days when CT data was not collected:	0

Minimum disinfectant residual required leaving the plant: 0.5 mg/L, measured as Total Chlorine

Number of days with a low residual for no more than 4.0 consecutive hours:	0	Minimum pH in the last disinfection zone:	6.76
		Number of days with pH below 7.0 in the last disinfection zone:	1.00
Number of days with a low residual for more than 4.0 consecutive hours:	0 (5)	Number of days when disinfectant residual leaving the plant was not properly monitored:	0

DISTRIBUTION SYSTEM

Minimum disinfectant residual required in distribution system: 0.5 mg/L, measured as Total Chlorine

Total number of readings this month:	46 (at least 31 required) (8)		
Average disinfectant residual value:	2.42	Percentage of readings with a low residual this month:	0.0 % (6A)
Number of readings with a low residual:	0		
Number of readings with no detectable residual:	0	Percentage of readings with a low residual last month:	0.0 % (6B)

ADDITIONAL REPORTS & WORKSHEETS

The Page 1 Addendum (Public Notices) is not required because there were no treatment technique or monitoring/reporting violations reported.

Additional report(s) for individual filter monitoring required: ◉ NONE ○ Filter Profile ○ Filter Assessment ○ CPE

Additional report(s) for individual filter monitoring submitted: ◉ NONE ○ Filter Profile (9) ○ Filter Assessment (10) ○ CPE (11)

No additional IFE Reports are required this month.

P.2-Turbidity Data P.3-Filter Data P.4&5-Disinfection Data P.6-TOCMOR

Alternate Technol. UV–CDA UV–Sensor Data UV–UVT Analyzer

STATISTICAL ANALYSIS OF TURBIDITY DATA

Settled Water Stastical Summary	Maximum turbidity reading:	10.70 NTU	Average turbidity value:	2.18 NTU
	Minimum turbidity reading:	0.21 NTU	Standard deviation:	1.759 NTU
	95th percentile value:	4.87 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.15 NTU	Average IFE turbidity value:	0.06 NTU
	Minimum IFEturbidity reading:	0.03 NTU	Standard deviation:	0.016 NTU
	95th percentile IFE value:	0.08 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.14 NTU	Average CFE turbidity value:	0.06 NTU
	Minimum CFE turbidity reading:	0.03 NTU	Standard deviation:	0.019 NTU
	95th percentile CFE value:	0.11 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.45 pH	Average pH value:	7.28 pH
	Minimum pH reading:	6.76 pH	Standard deviation:	0.128 pH
	95th percentile value:	7.40 pH		

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

Turbidity Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Connections:** 1,931

Month: January **Year:** 2020 **Population:** 6,758

PERFORMANCE DATA

Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES NTU	RAW WATER ANALYSES Alk.	SETTLED WATER TURBIDITY (Optional Data) Basin No. 1	2	3	4	5	6	FINISHED WATER QUALITY Combined Filter Effluent Turbidity NTU1	NTU2	NTU3	NTU4	NTU5	NTU6	Lowest Residual	Time*
1	0.639	0.597	78	160	3.2	1.1					X	X	X	X	0.04	0.06	3.1	
2	0.778	0.771	15	160	4.9	1.2					X	X	X	0.06	0.06	0.06	2.8	
3	0.787	0.750	20	160	1.0	3.8					X	X	X	0.06	0.04	0.05	3.5	
4	0.735	0.770	26	160	1.0	1.1					X	X	X	X	0.06	0.06	2.9	
5	0.827	0.746	32	180	3.0	1.1					0.06	X	X	0.06	0.06	0.06	3.1	
6	0.825	0.769	44	160	1.6	1.0					X	X	X	0.05	0.12	0.12	2.9	
7	0.870	0.721	27	160	4.1	1.1					X	X	X	0.14	0.07	0.06	3.4	
8	0.763	0.720	30	140	3.4	1.3					X	X	X	X	0.05	0.05	2.7	
9	0.830	0.657	28	160	3.3	1.3					X	X	X	0.05	0.06	0.06	2.5	
10	0.686	0.583	21	180	3.3	1.2					X	X	X	0.13	0.03	0.05	2.8	
11	0.829	0.652	33	160	3.2	1.1					X	X	X	0.05	0.05	0.08	2.9	
12	0.906	0.700	36	160	5.2	1.2					0.08	X	X	0.07	0.07	0.06	2.3	
13	0.697	0.640	20	180	4.1	1.1					X	X	X	X	0.05	0.05	2.5	
14	0.769	0.603	22	160	3.0	1.1					X	X	X	0.05	0.05	0.05	2.6	
15	0.860	0.719	25	160	2.0	1.2					X	X	X	0.05	0.06	0.06	2.6	
16	0.767	0.593	20	160	6.6	1.2					0.04	X	X	0.05	0.05	0.05	3.0	
17	0.634	0.836	21	140	2.0	1.1					X	X	X	X	0.07	0.05	2.7	
18	0.630	0.418	22	140	2.4	1.3					X	X	X	X	0.05	0.05	2.8	
19	0.668	0.518	23	140	1.1	1.4					X	X	X	X	0.05	0.05	2.8	
20	0.683	0.568	18	160	2.3	1.5					X	X	X	0.06	0.05	0.06	2.3	
21	0.748	0.529	15	160	2.9	2.8					X	X	X	0.09	0.06	0.06	2.9	
22	0.713	0.420	2	160	3.3	1.6					X	X	X	X	0.06	0.06	2.7	
23	0.727	0.641	16	160	3.0	0.4					X	X	X	0.05	0.06	0.05	2.8	
24	0.698	0.649	15	160	2.6	0.4					X	X	X	0.06	0.05	0.06	2.6	
25	0.699	0.596	2	160	1.8	0.4					X	X	X	X	0.06	0.06	2.7	
26	0.754	0.744	16	160	1.2	0.4					X	X	X	X	0.06	0.06	2.6	
27	0.776	0.754	14	160	1.5	0.4					0.06	X	X	X	0.11	0.04	2.4	
28	0.645	0.658	10	180	1.2	10.7					0.05	X	X	0.04	0.04	0.04	2.6	
29	0.771	0.697	5	180	0.3	4.2					X	X	X	0.05	0.05	0.04	2.9	
30	0.959	0.867	12	140	0.8	4.2					X	X	X	X	0.04	0.05	2.9	
31	0.959	0.867	20	180	0.2	3.8					X	X	X	X	0.05	0.05	2.7	
Total	23.632	20.753		Max	6.6	10.7												
Avg	0.762	0.669		Avg	2.6	1.8												
Max	0.959	0.867		95th %	5.1	4.2												
Min	0.630	0.418		Min	0.2	0.4												
				95th percentile based on data from all basins						4.9								

NOTE: ONLY use the "Time*" column to show the length of time that the disinfectant residual entering the distribution system fell below the acceptable level.

SUBMITTED BY: Luis G. Tapia **Certificate No. and Grade:** WS0014096, B **Date:** February 10, 2020

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

Filter Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2020

PERFORMANCE DATA

INDIVIDUAL FILTER TURBIDITY

Date	Filter No. 1		Filter No. 2		Filter No. 3		Filter No. 4		Filter No. 5		Filter No. 6		Filter No. 7		Filter No. 8		Filter No. 9		Filter No. 10	
	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs
1	0.03		0.04		0.05		0.05													
2	0.07		0.06		0.05		0.04													
3	0.07		0.05		0.06		0.07													
4	0.07		0.05		0.06		0.08													
5	0.07		0.06		0.07		0.08													
6	0.05		0.05		0.04		0.05													
7	0.05		0.05		0.05		0.06													
8	0.06		0.04		0.04		0.05													
9	0.07		0.04		0.07		0.05													
10	0.08		0.05		0.08		0.05													
11	0.10		0.09		0.05		0.15													
12	0.09		0.07		0.05		0.07													
13	0.08		0.05		0.04		0.04													
14	0.08		0.06		0.08		0.10													
15	0.06		0.06		0.07		0.05													
16	0.06		0.05		0.04		0.06													
17	0.06		0.05		0.04		0.06													
18	0.05		0.04		0.05		0.06													
19	0.05		0.06		0.04		0.05													
20	0.05		0.05		0.06		0.06													
21	0.05		0.05		0.04		0.08													
22	0.05		0.06		0.06		0.06													
23	0.04		0.04		0.04		0.05													
24	0.04		0.04		0.04		0.06													
25	0.04		0.04		0.04		0.05													
26	0.08		0.06		0.04		0.06													
27	0.06		0.07		0.05		0.06													
28	0.06		0.06		0.06		0.06													
29	0.06		0.06		0.05		0.06													
30	0.06		0.04		0.06		0.06													
31	0.05		0.04		0.05		0.04													

SUMMARY & COMPLIANCE ACTIONS

Criteria	Filter No. 1	2	3	4	5	6	7	8	9	10	Plant
Number of days with event(s) above 0.5 NTU at 4.0 hrs this month											
Number of days with event(s) above 1.0 NTU this month	0	0	0	0							
Number of days with event(s) above 1.0 NTU last month	0	0	0	0							
Number of days with event(s) above 1.0 NTU two months ago	0	0	0	0							
Total number of days with event(s) above 1.0 NTU in three months	0	0	0	0							
Number of events above 2.0 NTU this month											0
Number of events above 2.0 NTU last month											0
Does the filter/plant have an approved Corrective Action Plan?	N	N	N	N							N
Is the plant required to submit a Filter Profile Report?	N	N	N	N							
Is the plant required to submit a Filter Assessment Report?	N	N	N	N							
Is the plant required to submit a Request for Compliance CPE?											N

SUBMITTED BY: Luis G. Tapia Certificate No. and Grade: WS0014096, B Date: February 10, 2020

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
Disinfection Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2020

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
	Disinfection Zones					Log Inactivations	
Parameters	D1A	D1B	D2	D3	D4	Giardia lamblia Cysts	Viruses
Flow Rate (MGD)	1.250	1.250	0.625	1.250		0.5	2.0
T_{10} (minutes)	7.9	7.9	21.0	50.4			

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
1	FCL *D1A*	0.8	0.778	18.2	7.2				
	FCL *D1B*	0.8	0.778	18.4	7.3				
	FCL *D2*	0.8	0.389	18.2	7.3	2.30	48.33	4.59	
	CLA *D3*	3.2	0.778	18.1	7.3			(G)	
	D4								
2	FCL *D1A*	1.0	0.768	19.9	7.1				
	FCL *D1B*	0.6	0.768	19.8	7.1				
	FCL *D2*	0.3	0.384	18.0	7.1	1.63	27.14	3.26	
	CLA *D3*	3.0	0.768	18.7	7.1			(G)	
	D4								
3	FCL *D1A*	0.6	0.737	18.0	7.1				
	FCL *D1B*	0.7	0.737	18.0	7.0				
	FCL *D2*	0.7	0.368	18.0	7.1	2.32	41.66	4.64	
	CLA *D3*	3.8	0.737	18.0	7.1			(G)	
	D4								
4	FCL *D1A*	1.3	0.715	18.0	7.1				
	FCL *D1B*	1.2	0.715	18.0	7.2				
	FCL *D2*	1.4	0.357	18.0	7.1	3.80	89.28	7.61	
	CLA *D3*	3.3	0.715	18.0	7.2			(G)	
	D4								
5	FCL *D1A*	1.1	0.737	18.0	7.0				
	FCL *D1B*	1.2	0.737	18.0	7.1				
	FCL *D2*	0.5	0.368	18.0	7.1	2.30	43.56	4.60	
	CLA *D3*	3.3	0.737	18.0	7.2			(G)	
	D4								
6	FCL *D1A*	1.3	0.708	19.3	7.1				
	FCL *D1B*	1.1	0.708	18.9	7.1				
	FCL *D2*	0.6	0.354	21.2	7.7	2.73	58.82	5.45	
	CLA *D3*	3.5	0.708	19.9	7.2			(G)	
	D4								
7	FCL *D1A*	0.9	0.721	17.8	7.2				
	FCL *D1B*	0.7	0.721	17.6	7.2				
	FCL *D2*	0.6	0.360	16.9	7.3	2.14	40.76	4.29	
	CLA *D3*	3.3	0.721	18.3	7.3			(G)	
	D4								
8	FCL *D1A*	1.3	0.744	17.9	7.4				
	FCL *D1B*	1.4	0.744	18.8	7.4				
	FCL *D2*	1.1	0.372	18.8	7.4	3.18	76.52	6.37	
	CLA *D3*	3.4	0.744	19.3	7.3			(G)	
	D4								

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
9	FCL *D1A*	0.6	0.758	19.1	7.3				
	FCL *D1B*	0.7	0.758	19.1	7.3				
	FCL *D2*	0.5	0.379	19.3	7.4	1.94	37.84	3.88	
	CLA *D3*	2.7	0.758	21.2	7.4			(G)	
	D4								
10	FCL *D1A*	1.0	0.711	20.4	7.3				
	FCL *D1B*	1.0	0.711	20.2	7.2				
	FCL *D2*	0.6	0.356	20.4	7.4	2.66	56.46	5.32	
	CLA *D3*	3.0	0.711	20.8	7.3			(G)	
	D4								
11	FCL *D1A*	0.6	0.738	19.1	7.4				
	FCL *D1B*	0.6	0.738	18.7	7.4				
	FCL *D2*	0.5	0.369	19.1	7.4	1.92	36.87	3.84	
	CLA *D3*	3.0	0.738	19.6	7.4			(G)	
	D4								
12	FCL *D1A*	0.5	0.770	19.5	7.4				
	FCL *D1B*	0.7	0.770	19.2	7.3				
	FCL *D2*	0.4	0.385	19.4	7.4	1.62	30.31	3.23	
	CLA *D3*	2.7	0.770	19.8	7.4			(G)	
	D4								
13	FCL *D1A*	0.5	0.743	19.0	7.1				
	FCL *D1B*	0.5	0.743	19.0	7.2				
	FCL *D2*	0.6	0.372	19.0	7.1	2.02	37.46	4.04	
	CLA *D3*	2.9	0.743	19.0	7.3			(G)	
	D4								
14	FCL *D1A*	0.5	0.726	19.0	7.2				
	FCL *D1B*	0.7	0.726	20.0	7.2				
	FCL *D2*	0.3	0.363	18.0	7.3	1.47	22.68	2.94	
	CLA *D3*	3.1	0.726	19.0	7.3			(G)	
	D4								
15	FCL *D1A*	0.3	0.712	19.1	7.3				
	FCL *D1B*	0.3	0.712	18.9	7.2				
	FCL *D2*	0.2	0.356	19.1	7.4	1.41	18.60	2.83	
	CLA *D3*	3.3	0.712	20.5	7.5			(G)	
	D4								
16	FCL *D1A*	0.5	0.675	20.4	7.2				
	FCL *D1B*	0.5	0.675	20.3	7.2				
	FCL *D2*	0.3	0.337	20.5	7.4	1.93	31.36	3.85	
	CLA *D3*	3.2	0.675	21.3	7.3			(G)	
	D4								

NOTE: = ONLY use the "Time=" column to show the length of time that the total inactivation ratio was less than 1.00.

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: February 10, 2020

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
Disinfection Data Page (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2020

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
	Disinfection Zones					Log Inactivations	
Parameters	D1A	D1B	D2	D3	D4	Giardia lamblia Cysts	Virus
Flow Rate (MGD)	1.25	1.25	0.63	1.25		0.5	2.0
T_{10} (minutes)	7.90	7.90	21.00	50.40			

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
17	FCL *D1A*	0.5	0.753	19.2	7.2				
	FCL *D1B*	0.5	0.753	19.4	7.2				
	FCL *D2*	0.2	0.377	19.4	7.3	1.28	20.43	2.57	
	CLA *D3*	2.7	0.753	18.9	7.3			(G)	
	D4								
18	FCL *D1A*	0.3	0.734	19.8	7.2				
	FCL *D1B*	0.5	0.734	19.8	7.2				
	FCL *D2*	0.6	0.367	19.9	7.3	1.95	36.68	3.90	
	CLA *D3*	2.8	0.734	20.3	7.3			(G)	
	D4								
19	FCL *D1A*	0.4	0.789	19.0	7.3				
	FCL *D1B*	0.5	0.789	19.5	7.3				
	FCL *D2*	0.6	0.395	19.2	7.4	1.82	36.88	3.65	
	CLA *D3*	2.8	0.789	19.1	7.3			(G)	
	D4								
20	FCL *D1A*	0.7	0.932	19.6	7.3				
	FCL *D1B*	0.7	0.932	19.5	7.3				
	FCL *D2*	0.5	0.466	19.1	7.3	1.60	31.47	3.20	
	CLA *D3*	2.7	0.932	20.3	7.4			(G)	
	D4								
21	FCL *D1A*	0.9	0.727	19.1	7.3				
	FCL *D1B*	0.9	0.727	18.8	7.2				
	FCL *D2*	0.5	0.364	19.1	7.3	2.15	43.25	4.30	
	CLA *D3*	2.9	0.727	19.3	7.3			(G)	
	D4								
22	FCL *D1A*	0.7	0.751	19.0	7.2				
	FCL *D1B*	0.6	0.751	18.8	7.2				
	FCL *D2*	0.9	0.375	18.4	7.4	2.49	54.09	4.99	
	CLA *D3*	3.4	0.751	18.4	7.4			(G)	
	D4								
23	FCL *D1A*	0.4	0.742	18.0	7.3				
	FCL *D1B*	0.3	0.742	18.0	7.2				
	FCL *D2*	0.3	0.371	17.0	7.5	1.25	19.35	2.50	
	CLA *D3*	3.0	0.742	18.0	7.4			(G)	
	D4								
24	FCL *D1A*	0.5	0.685	18.0	7.3				
	FCL *D1B*	0.7	0.685	18.0	7.1				
	FCL *D2*	0.3	0.342	18.0	7.3	1.61	26.52	3.21	
	CLA *D3*	3.0	0.685	18.8	7.3			(G)	
	D4								

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
25	FCL *D1A*	1.0	0.739	18.0	7.2				
	FCL *D1B*	1.0	0.739	18.0	7.3				
	FCL *D2*	0.7	0.369	18.0	7.2	2.42	50.79	4.84	
	CLA *D3*	3.0	0.739	18.0	7.3			(G)	
	D4								
26	FCL *D1A*	1.0	0.750	19.0	7.2				
	FCL *D1B*	1.1	0.750	19.0	7.3				
	FCL *D2*	0.5	0.375	19.0	7.2	2.18	42.89	4.35	
	CLA *D3*	3.2	0.750	18.0	7.3			(G)	
	D4								
27	FCL *D1A*	0.6	0.732	20.0	7.3				
	FCL *D1B*	0.5	0.732	20.2	7.2				
	FCL *D2*	0.7	0.366	19.9	7.5	2.41	49.67	4.82	
	CLA *D3*	3.2	0.732	20.4	7.4			(G)	
	D4								
28	FCL *D1A*	0.6	0.686	21.1	7.3				
	FCL *D1B*	0.6	0.686	21.3	7.2				
	FCL *D2*	0.5	0.343	21.1	7.4	2.42	45.01	4.84	
	CLA *D3*	3.1	0.686	22.3	7.3			(G)	
	D4								
29	FCL *D1A*	0.9	0.657	18.9	7.2				
	FCL *D1B*	1.0	0.657	19.0	7.2				
	FCL *D2*	0.5	0.328	19.0	7.2	2.46	46.29	4.91	
	CLA *D3*	3.1	0.657	19.9	7.2			(G)	
	D4								
30	FCL *D1A*	0.4	0.670	17.7	7.2				
	FCL *D1B*	0.4	0.670	17.9	7.2				
	FCL *D2*	0.5	0.335	18.3	6.8	2.04	32.93	4.08	
	CLA *D3*	3.3	0.670	17.0	6.8			(G)	
	D4								
31	FCL *D1A*	0.7	0.698	18.1	7.4				
	FCL *D1B*	0.6	0.698	18.0	7.3				
	FCL *D2*	0.8	0.349	18.2	7.3	2.39	49.95	4.78	
	CLA *D3*	3.2	0.698	18.1	7.3			(G)	
	D4								
					Max	3.80	89.28	7.61	
					Min	1.25	18.60	2.50	
					Avg	2.12	41.41	4.25	
					SD	0.54	15.29	1.08	

NOTE: = ONLY use the "Time=" column to show the length of time that the total inactivation ratio was less than 1.00.

SUBMITTED BY: Luis G. Tapia Certificate No. and Grade: WS0014096, B Date: February 10, 2020

MONTHLY TOTAL ORGANIC CARBON REMOVAL REPORT (TOCMOR)

FOR SURFACE WATER OR GROUND WATER UNDER THE INFLUENCE OF SURFACE WATER SYSTEMS

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: January

Year: 2020

Type of treatment: [X] Conventional [ ] Unconventional explain:

Note: Systems are required to run one TOC Sample Set every month. Additional space is provided for those systems that do additional sampling

Test No.	Test Date	Monthly TOC Sample Set			Actual % TOC Removed	Step 1 Required % Removal	Step 1 Removal Ratio	Optional data		INDIVIDUAL SAMPLE COMPLIANCE REMOVAL RATIO
		Raw Alkalinity	Raw TOC	Treated TOC				Step 2 Required % Removal	Step 2 Removal Ratio	
		Enter the Sample Set results			*calculated*	*calculated from matrix*	*calculated*			*calculated*
1	1/6	160	2.85	2.26	20.7	15	1.38			1.38
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Avg		160.00	2.85	2.26	20.70		1.38			1.38
Max		160.00	2.85	2.26	20.70		1.38			1.38
Min		160.00	2.85	2.26	20.70		1.38			1.38

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
160	2.85	2.26	20.7	NA	1.38

I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.

Operator's Signature: Luis A Garcia

Certificate No. and Grade: WS0014096, B

Date: February 10, 2020

Submit the report by the 10th of the month following the reporting period to:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER SUPPLY DIVISION/PUBLIC DRINKING WATER SECTION (MC-155)
P.O. BOX 13087, AUSTIN, TEXAS 78711-3087

UV MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER
UV Calculated Dose Approach Reactors

PUBLIC WATER SYSTEM NAME: Webb County Water Utility
PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** January **Year:** 2020

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
Parameters	Reactor Number					Crypto Log Inactivation	Required UV Dose (mJ/cm^2)
	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5		
Max Validated Flow Rate (MGD)	5.080	5.080	5.080			1.0	2.50
Min Validated UVT (%)	69.20	69.20	69.20				

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
1	1	0.260	0.704	86.00	40.71	1.00	40.71	0.000	0.75
	2	0.345	0.936	86.00	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.317	0.679	71.91	33.02	1.00	33.02	0.000	0.000
	2	0.415	0.903	71.91	25.90	1.00	25.90	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.322	0.954	85.95	0.00	1.00	0.00	0.001	0.25
	2	0.421	1.158	85.95	0.00	1.00	0.00	0.002	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.300	0.628	88.88	0.00	1.00	0.00	0.004	0.25
	2	0.371	0.811	88.88	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.336	0.647	89.42	30.67	1.00	30.67	0.000	0.25
	2	0.422	0.859	89.42	1.60	1.00	1.60	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.341	0.856	88.96	35.01	1.00	35.01	0.000	0.000
	2	0.436	1.143	88.96	5.28	1.00	5.28	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.349	0.632	86.30	0.00	1.00	0.00	0.006	0.25
	2	0.436	0.816	86.30	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.311	0.661	90.64	0.00	1.00	0.00	0.005	0.25
	2	0.387	0.860	90.64	0.00	1.00	0.00	0.014	
	3	X	X	X	X	X	X	X	
	4								
	5								

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
9	1	0.330	0.663	89.27	0.00	1.00	0.00	0.005	0.75
	2	0.424	0.892	89.27	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.303	0.705	92.11	0.00	1.00	0.00	0.006	0.25
	2	0.397	0.930	92.11	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.306	0.743	89.96	0.00	1.00	0.00	0.005	0.25
	2	0.388	0.981	89.96	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.379	0.693	84.07	0.00	1.00	0.00	0.006	0.25
	2	0.494	0.921	84.07	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.295	0.657	79.29	31.11	1.00	31.11	0.000	0.000
	2	0.377	0.862	79.29	9.49	1.00	9.49	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.327	0.638	79.12	0.00	1.00	0.00	0.002	0.25
	2	0.429	0.841	79.12	0.00	1.00	0.00	0.002	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.323	0.668	88.18	0.00	1.00	0.00	0.005	0.25
	2	0.417	0.878	88.18	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.369	0.663	91.69	46.29	1.00	46.29	0.000	0.25
	2	0.481	0.899	91.69	2.09	1.00	2.09	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Luis G. Tapia **Certificate No. and Grade:** WS0014096, B **Date:** February 10, 2020

UV MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
UV Calculated Dose Approach Reactors (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2020

TRUE

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
Parameters	Reactor Number					Crypto Log Inactivation	Required UV Dose (mJ/cm²)
	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5		
Max Validated Flow Rate (MGD)	5.080	5.080	5.080			1.0	2.50
Min Validated UVT (%)	69.20	69.20	69.20				

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm²)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm²)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
	OPERATIONAL DATA								
17	1	0.269	0.708	91.91	38.95	1.00	38.95	0.000	0.000
	2	0.357	0.952	91.91	22.02	1.00	22.02	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.269	0.692	87.69	41.43	1.00	41.43	0.000	0.000
	2	0.343	0.911	87.69	4.15	1.00	4.15	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.285	0.744	83.46	36.96	1.00	36.96	0.000	0.000
	2	0.373	0.985	83.46	17.59	1.00	17.59	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.296	0.745	86.71	0.00	1.00	0.00	0.007	0.25
	2	0.392	0.972	86.71	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.301	0.701	91.26	28.61	1.00	28.61	0.000	0.000
	2	0.388	0.922	91.26	30.38	1.00	30.38	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.262	0.677	91.59	0.00	1.00	0.00	0.004	0.25
	2	0.326	0.873	91.59	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.315	0.650	83.51	0.00	1.00	0.00	0.006	0.25
	2	0.419	0.857	83.51	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.295	0.628	85.07	42.25	1.00	42.25	0.000	0.000
	2	0.384	0.834	85.07	33.30	1.00	33.30	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm²)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm²)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
	OPERATIONAL DATA								
25	1	0.286	0.672	90.45	0.00	1.00	0.00	0.005	0.25
	2	0.373	0.885	90.45	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.322	0.670	91.30	31.53	1.00	31.53	0.000	0.000
	2	0.402	0.884	91.30	31.61	1.00	31.61	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.325	0.654	89.64	44.26	1.00	44.26	0.000	0.000
	2	0.389	0.864	89.64	34.79	1.00	34.79	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.284	0.677	85.64	0.00	1.00	0.00	0.006	0.25
	2	0.369	0.863	85.64	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.328	0.649	89.98	41.51	1.00	41.51	0.000	0.25
	2	0.408	0.795	89.98	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.267	0.605	82.00	43.80	1.00	43.80	0.000	0.000
	2	0.342	0.796	82.00	32.95	1.00	32.95	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1	0.296	0.622	89.01	10.46	1.00	10.46	0.000	0.000
	2	0.378	0.829	89.01	32.26	1.00	32.26	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B Date: February 10, 2020

UV MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

UV Calculated Dose Approach - Daily Minimum Inactivation Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** January **Year:** 2020

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm²)	Inactivation Credit Achieved: Giardia Log	Virus Log	Crypto Log
1 to 3	1	0.00*	1.00	0.00	1.00
	2	25.90	4.00	0.11	1.00
	3	0.00*	1.00	0.00	1.00
	4	0.00*	1.00	0.00	1.00
	5	1.60*	1.00	0.00	1.00
	6	5.28	2.02	0.00	1.00
	7	0.00*	1.00	0.00	1.00
	8	0.00*	1.00	0.00	1.00
1 to 3	9	0.00*	1.00	0.00	1.00
	10	0.00*	1.00	0.00	1.00
	11	0.00*	1.00	0.00	1.00
	12	0.00*	1.00	0.00	1.00
	13	9.49	2.77	0.00	1.00
	14	0.00*	1.00	0.00	1.00
	15	0.00*	1.00	0.00	1.00
	16	2.09*	1.00	0.00	1.00

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm²)	Min Inactivation: Giardia Log	Virus Log	Crypto Log
1 to 3	17	22.02	4.00	0.00	1.00
	18	4.15	1.83	0.00	1.00
	19	17.59	3.68	0.00	1.00
	20	0.00*	1.00	0.00	1.00
	21	28.61	4.00	0.19	1.00
	22	0.00*	1.00	0.00	1.00
	23	0.00*	1.00	0.00	1.00
	24	33.30	4.00	0.33	1.00
1 to 3	25	0.00*	1.00	0.00	1.00
	26	31.53	4.00	0.28	1.00
	27	34.79	4.00	0.38	1.00
	28	0.00*	1.00	0.00	1.00
	29	0.00*	1.00	0.00	1.00
	30	32.95	4.00	0.32	1.00
	31	10.46	2.92	0.00	1.00

Total volume of water treated by all CDA reactors:	21.85	MG
Total volume of off-spec water produced by all CDA reactors:	0.20	MG
Percentage of off-spec water produced by all CDA reactors:	0.92	%
Crypto Log-Inactivation Credit for treatment by CDA reactors:	1.00	log

Raw water pumpage and total production by all UV reactors differ by more than 15% on these days: 11, 22, 30, 31

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B **Date:** February 10, 2020

UV MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

UV Sensor Calibration for Calculated Dose Reactors

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** January **Year:** 2020

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date and Data	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 1	Previous Month's Sensor CF	1	92	44	74.20	80.20	0.93	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	1/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	75.50	71.50	1.06	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	1/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	4.30	3.60	1.19		off-line
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	1/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 4	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 5	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 6	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 7	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 8	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 9	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 10	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: February 10, 2020

UV MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
UV Sensor Calibration for Calculated Dose Reactors (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: January

Year: 2020

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 11	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 12	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 13	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 14	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 15	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 16	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 17	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 18	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 19	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 20	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

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Date: February 10, 2020

UV MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
UVT Analyzer Calibration

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID 20831

NA

Month: January

Year: 2020

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: UVT 08-P0108955

UVT Analyzer Number	Week	Calibration Date	On-line UVT Analyzer Serial #	On-line Reading (% UVT)	Grab Sample Reading (% UVT)	Difference (% UVT)	Recalibration Performed? (if Diff > 2%)	Other Action Taken
UVT No. 1	1	1/1/20	78713	92.60	92.10	0.50	NA	NA
	2	1/6/20	78713	94.30	93.50	0.80	NA	NA
	3	1/13/20	78713	94.20	93.10	1.10	NA	NA
	4	1/20/20	78713	93.50	93.30	0.20	NA	NA
	5	1/27/20	78713	92.90	93.10	0.20	NA	NA
UVT No. 2	1							
	2							
	3							
	4							
	5							
UVT No. 3	1							
	2							
	3							
	4							
	5							
UVT No. 4	1							
	2							
	3							
	4							
	5							
UVT No. 5	1							
	2							
	3							
	4							
	5							
UVT No. 6	1							
	2							
	3							
	4							
	5							
UVT No. 7	1							
	2							
	3							
	4							
	5							
UVT No. 8	1							
	2							
	3							
	4							
	5							
UVT No. 9	1							
	2							
	3							
	4							
	5							
UVT No. 10	1							
	2							
	3							
	4							
	5							

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: UVT 08-P0108955

UVT Analyzer Number	Week	Calibration Date	On-line UVT Analyzer Serial #	On-line Reading (% UVT)	Grab Sample Reading (% UVT)	Difference (% UVT)	Recalibration Performed? (if Diff > 2%)	Other Action Taken
UVT No. 11	1							
	2							
	3							
	4							
	5							
UVT No. 12	1							
	2							
	3							
	4							
	5							
UVT No. 13	1							
	2							
	3							
	4							
	5							
UVT No. 14	1							
	2							
	3							
	4							
	5							
UVT No. 15	1							
	2							
	3							
	4							
	5							
UVT No. 16	1							
	2							
	3							
	4							
	5							
UVT No. 17	1							
	2							
	3							
	4							
	5							
UVT No. 18	1							
	2							
	3							
	4							
	5							
UVT No. 19	1							
	2							
	3							
	4							
	5							
UVT No. 20	1							
	2							
	3							
	4							
	5							

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: February 10, 2020

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES

OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

LT2ESWTR Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2020

Note: Indicate the treatment processes in each train. (see comment)	TREATMENT TECHNOLOGIES																
	PRETREATMENT CREDITS				FILTRATION TECHNOLOGY CREDITS						ENHANCED PERFORMANCE CREDITS		DISINFECTION TECHNOLOGY CREDITS			OTHER TREATMENT CREDITS	
	Riverbank Filtration	Presed. with Coagul.	Two-stage Lime Softening	Conventional Sedimentation or Clarification	Conventional Granular Media Filters	Bag or Cartridge Filtration	Two-Stage Filtration	Membrane Filtration (PBT)	Membrane Filtration (QBT)	Membrane Filtration (MBT)	Enhanced CFE Perform.	Optimized IFE Perform.	Crypto Chemical Disinfect.	UV Disinfect. (ISA)	UV Disinfect. (CDA)	Watershed Protection	Perform. Demon.
Overall	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
Train 1				TRUE	TRUE						TRUE	FALSE			TRUE		
Train 2																	
Train 3																	
Train 4																	
Train 5																	
1					2.50										1.00		
2					2.50										1.00		
3					2.50										1.00		
4					2.50										1.00		
5					2.50										1.00		
6					2.50										1.00		
7					2.50										1.00		
8					2.50										1.00		
9					2.50										1.00		
10					2.50										1.00		
11					2.50										1.00		
12					2.50										1.00		
13					2.50										1.00		
14					2.50										1.00		
15					2.50										1.00		
16				0.50	2.50						0.50				1.00		
17					2.50										1.00		
18					2.50										1.00		
19					2.50										1.00		
20					2.50										1.00		
21					2.50										1.00		
22					2.50										1.00		
23					2.50										1.00		
24					2.50										1.00		
25					2.50										1.00		
26					2.50										1.00		
27					2.50										1.00		
28					2.50										1.00		
29					2.50										1.00		
30					2.50										1.00		
31					2.50										1.00		
MIN				0.5	2.5						0.5				1.00		

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

LT2ESWTR Summary Page (cont)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2020

	GIARDIA AND CRYPTOSPORIDIUM TREATMENT CREDITS												GIARDIA INACTIVATION CREDITS						VIRAL INACTIVATION CREDITS					
	Total Daily Credit By Train						Total Daily Bin 3 & 4 Credit by Train						Total Daily Inactivation Credit By Train						Total Daily Inactivation Credit by Train					
Overall																								
Train 1	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum
Train 2																								
Train 3																								
Train 4																								
Train 5																								
1	4.50					4.50	1.00					1.00	3.30					3.30	48.33					48.33
2	4.50					4.50	1.00					1.00	6.30					6.30	27.24					27.24
3	4.50					4.50	1.00					1.00	3.32					3.32	41.66					41.66
4	4.50					4.50	1.00					1.00	4.80					4.80	89.28					89.28
5	4.50					4.50	1.00					1.00	3.30					3.30	43.56					43.56
6	4.50					4.50	1.00					1.00	4.74					4.74	58.82					58.82
7	4.50					4.50	1.00					1.00	3.14					3.14	40.76					40.76
8	4.50					4.50	1.00					1.00	4.18					4.18	76.52					76.52
9	4.50					4.50	1.00					1.00	2.94					2.94	37.84					37.84
10	4.50					4.50	1.00					1.00	3.66					3.66	56.46					56.46
11	4.50					4.50	1.00					1.00	2.92					2.92	36.87					36.87
12	4.50					4.50	1.00					1.00	2.62					2.62	30.31					30.31
13	4.50					4.50	1.00					1.00	4.79					4.79	37.46					37.46
14	4.50					4.50	1.00					1.00	2.47					2.47	22.68					22.68
15	4.50					4.50	1.00					1.00	2.41					2.41	18.60					18.60
16	4.50					4.50	1.00					1.00	2.93					2.93	31.36					31.36
17	4.50					4.50	1.00					1.00	5.28					5.28	20.43					20.43
18	4.50					4.50	1.00					1.00	3.79					3.79	36.68					36.68
19	4.50					4.50	1.00					1.00	5.51					5.51	36.88					36.88
20	4.50					4.50	1.00					1.00	2.60					2.60	31.47					31.47
21	4.50					4.50	1.00					1.00	6.15					6.15	43.44					43.44
22	4.50					4.50	1.00					1.00	3.49					3.49	54.09					54.09
23	4.50					4.50	1.00					1.00	2.25					2.25	19.35					19.35
24	4.50					4.50	1.00					1.00	5.61					5.61	26.86					26.86
25	4.50					4.50	1.00					1.00	3.42					3.42	50.79					50.79
26	4.50					4.50	1.00					1.00	6.18					6.18	43.18					43.18
27	4.50					4.50	1.00					1.00	6.41					6.41	50.04					50.04
28	4.50					4.50	1.00					1.00	3.42					3.42	45.01					45.01
29	4.50					4.50	1.00					1.00	3.46					3.46	46.29					46.29
30	4.50					4.50	1.00					1.00	6.04					6.04	33.26					33.26
31	4.50					4.50	1.00					1.00	5.31					5.31	49.95					49.95
MIN	4.50					4.50	1.00					1.00	2.25					2.25	18.60					18.60
AVG	4.50					4.50	1.00					1.00	4.09					4.09	41.47					41.47
MAX	4.50					4.50	1.00					1.00	6.41					6.41	89.28					89.28