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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Report for the Month of: August 2019

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:

Certificate No. & Grade: WS0014046, B

Date: September 10, 2019

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	148	Number of 4-hour periods when plant was off-line:	38
Number of readings above 0.10 NTU:	14	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:	6.52
		Average log inactivation) (including UV) for viruses:	94.11
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:	6.77
		Number of days with pH below 7.0 in the last disinfection zone:	15.00
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:	41 (at least 31 required) (8)		
Average disinfectant residual value:	1.85	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 P.7-TOC ACC

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

STATISTICAL ANALYSIS OF TURBIDITY DATA

Settled Water Stastical Summary	Maximum turbidity reading:	13.67 NTU	Average turbidity value:	1.85 NTU
	Minimum turbidity reading:	0.49 NTU	Standard deviation:	1.930 NTU
	95th percentile value:	4.85 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.20 NTU	Average IFE turbidity value:	0.07 NTU
	Minimum IFEturbidity reading:	0.03 NTU	Standard deviation:	0.027 NTU
	95th percentile IFE value:	0.12 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.13 NTU	Average CFE turbidity value:	0.08 NTU
	Minimum CFE turbidity reading:	0.02 NTU	Standard deviation:	0.026 NTU
	95th percentile CFE value:	0.11 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.39 pH	Average pH value:	7.03 pH
	Minimum pH reading:	6.77 pH	Standard deviation:	0.149 pH
	95th percentile value:	7.25 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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Connections:** 1,942

Month: August **Year:** 2019 **Population:** 6,797

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	1.158	1.066	32	120	5.1	1.2					0.09	X	0.10	0.10	0.09	0.09	1.7	
2	1.079	0.971	33	120	0.9	1.3					0.09	X	0.09	0.08	0.09	0.09	1.5	
3	1.107	1.088	12	120	2.7	1.4					0.08	X	0.07	0.05	0.05	0.05	1.9	
4	1.153	1.051	18	120	1.1	1.9					0.05	X	0.05	0.04	0.04	0.04	2.0	
5	1.081	1.061	21	120	0.8	1.6					0.05	X	X	0.05	0.06	0.05	2.5	
6	1.276	1.087	25	120	1.2	1.7					0.02	X	0.09	0.10	0.10	0.10	1.4	
7	1.085	1.083	22	120	0.9	1.6					0.09	X	0.07	0.09	0.10	0.10	2.8	
8	1.274	1.100	22	120	0.8	0.5					0.10	X	X	0.10	0.11	0.10	1.6	
9	1.207	1.067	21	120	0.8	0.6					0.09	X	X	0.07	0.12	0.09	2.3	
10	1.189	1.059	21	120	1.7	3.0					0.09	X	0.05	0.04	0.04	0.05	2.7	
11	1.170	1.142	20	120	1.3	0.6					0.05	X	0.04	0.03	0.04	0.04	2.5	
12	1.168	1.110	34	120	4.9	13.7					0.03	X	0.04	0.05	0.08	0.05	2.4	
13	1.187	1.102	26	120	2.9	1.1					0.05	X	0.04	0.05	0.09	0.09	1.5	
14	1.193	1.116	21	120	0.8	1.2					0.08	X	0.09	0.09	0.09	0.10	1.4	
15	1.116	1.020	19	100	0.8	1.1					0.10	X	X	0.10	0.10	0.10	1.7	
16	1.212	1.076	19	100	0.8	1.2					0.10	X	0.06	0.05	0.05	0.06	1.5	
17	1.098	1.087	21	100	3.7	1.3					0.07	X	0.04	0.04	0.05	0.05	2.6	
18	1.283	1.119	24	100	0.8	1.3					0.05	X	0.04	0.04	0.05	0.08	2.7	
19	1.312	1.188	22	120	0.8	4.0					0.08	X	0.04	0.04	0.03	0.10	2.9	
20	1.123	1.022	44	140	6.4	1.9					0.09	X	0.09	0.09	0.10	0.10	2.7	
21	1.128	1.067	20	140	0.8	1.7					0.10	X	0.10	0.10	0.11	0.11	2.8	
22	1.118	1.060	22	140	0.7	1.7					0.10	X	0.10	0.09	0.09	0.09	2.6	
23	1.104	0.959	29	120	0.8	2.2					0.09	X	0.08	0.08	0.08	0.05	1.6	
24	1.021	0.974	22	120	2.9	2.2					0.07	X	0.06	0.06	0.05	0.05	2.7	
25	1.039	0.978	26	120	0.8	3.2					0.12	X	0.08	0.07	0.06	0.05	2.7	
26	1.089	1.146	17	120	0.8	2.9					0.05	X	X	0.08	0.08	0.09	2.4	
27	1.225	1.055	18	120	0.8	0.9					0.10	X	0.10	0.10	0.10	0.10	2.6	
28	1.165	0.879	60	120	0.8	0.9					0.11	X	0.11	0.11	0.13	0.13	3.0	
29	1.071	0.960	24	120	0.8	1.1					X	X	0.12	0.11	0.12	0.12	1.7	
30	1.177	1.006	27	140	2.9	1.3					0.10	X	0.10	0.10	0.10	0.09	2.4	
31	0.999	0.984	28	140	2.8	1.3					0.09	X	X	0.08	0.08	0.08	1.4	
Total	35.607	32.683		Max	6.4	13.7												
Avg	1.149	1.054		Avg	1.7	2.0												
Max	1.312	1.188		95th %	5.0	3.6												
Min	0.999	0.879		Min	0.7	0.5												
				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: Adolfo V. **Certificate No. and Grade:** WS0014046, B **Date:** September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: August Year: 2019

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	0.08		0.09		0.06		0.05													
2	0.10		0.04		0.06		0.08													
3	0.04		0.05		0.14		0.05													
4	0.06		0.11		0.04		0.11													
5	0.08		0.07		0.05		0.05													
6	0.08		0.06		0.06		0.06													
7	0.06		0.06		0.07		0.06													
8	0.13		0.05		0.07		0.06													
9	0.20		0.13		0.09		0.09													
10	0.18		0.04		0.12		0.04													
11	0.12		0.07		0.06		0.10													
12	0.05		0.04		0.04		0.04													
13	0.05		0.06		0.05		0.03													
14	0.05		0.05		0.07		0.06													
15	0.08		0.07		0.10		0.06													
16	0.08		0.06		0.07		0.07													
17	0.09		0.08		0.11		0.06													
18	0.07		0.06		0.04		0.08													
19	0.06		0.06		0.10		0.06													
20	0.08		0.05		0.05		0.04													
21	0.04		0.07		0.04		0.06													
22	0.07		0.06		0.07		0.03													
23	0.04		0.03		0.04		0.06													
24	0.05		0.06		0.05		0.03													
25	0.06		0.03		0.05		0.03													
26	0.06		0.06		0.06		0.05													
27	0.05		0.08		0.07		0.05													
28	0.08		0.05		0.06		0.05													
29	0.08		0.05		0.06		0.08													
30	0.06		0.06		0.06		0.05													
31	0.07		0.05		0.06		0.07													

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: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: August Year: 2019

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*	0.6	0.719	27.9	7.0				
	FCL *D1B*	0.7	0.719	28.7	6.9				
	FCL *D2*	0.8	0.360	28.5	7.0	5.00	104.36	10.01	
	CLA *D3*	2.9	0.719	29.8	6.9			(G)	
	D4								
2	FCL *D1A*	0.5	0.727	28.6	6.9				
	FCL *D1B*	0.7	0.727	28.7	6.9				
	FCL *D2*	0.8	0.364	28.5	6.9	4.88	97.00	9.76	
	CLA *D3*	3.2	0.727	30.1	6.9			(G)	
	D4								
3	FCL *D1A*	0.3	0.735	27.2	6.9				
	FCL *D1B*	0.5	0.735	26.8	7.0				
	FCL *D2*	0.7	0.368	26.9	7.1	3.73	72.34	7.45	
	CLA *D3*	2.9	0.735	29.2	6.9			(G)	
	D4								
4	FCL *D1A*	0.6	0.769	28.1	7.0				
	FCL *D1B*	0.7	0.769	28.7	7.0				
	FCL *D2*	1.0	0.384	27.9	7.0	5.13	109.48	10.26	
	CLA *D3*	3.3	0.769	29.1	6.9			(G)	
	D4								
5	FCL *D1A*	0.3	0.773	30.4	7.2				
	FCL *D1B*	0.6	0.773	29.6	6.9				
	FCL *D2*	0.6	0.387	27.8	7.0	3.42	67.50	6.83	
	CLA *D3*	2.5	0.773	30.6	7.0			(G)	
	D4								
6	FCL *D1A*	0.2	0.774	28.2	7.0				
	FCL *D1B*	0.3	0.774	28.8	7.1				
	FCL *D2*	0.6	0.372	27.2	7.2	2.95	56.86	5.90	
	CLA *D3*	2.8	0.774	29.5	6.8			(G)	
	D4								
7	FCL *D1A*	0.5	0.741	27.7	7.1				
	FCL *D1B*	0.7	0.741	28.1	7.1				
	FCL *D2*	0.5	0.370	29.4	7.0	3.70	69.89	7.41	
	CLA *D3*	3.0	0.741	28.6	7.2			(G)	
	D4								
8	FCL *D1A*	0.3	0.732	28.1	7.2				
	FCL *D1B*	0.5	0.732	28.6	7.2				
	FCL *D2*	0.6	0.366	29.3	7.2	3.94	78.73	7.89	
	CLA *D3*	3.2	0.732	29.4	7.4			(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*	0.4	0.727	29.2	7.0				
	FCL *D1B*	0.6	0.727	29.2	7.0				
	FCL *D2*	0.1	0.364	29.7	7.2	1.59	22.42	3.17	
	CLA *D3*	2.3	0.727	30.9	7.0			(G)	
	D4								
10	FCL *D1A*	0.5	0.726	29.7	7.0				
	FCL *D1B*	0.4	0.726	29.9	7.0				
	FCL *D2*	0.8	0.363	29.4	7.0	4.81	100.20	9.61	
	CLA *D3*	2.9	0.726	30.3	7.0			(G)	
	D4								
11	FCL *D1A*	0.4	0.729	26.5	7.3				
	FCL *D1B*	0.6	0.729	26.5	7.2				
	FCL *D2*	0.8	0.364	29.2	7.2	4.46	97.90	8.92	
	CLA *D3*	2.8	0.729	30.0	7.1			(G)	
	D4								
12	FCL *D1A*	0.7	0.734	27.4	7.1				
	FCL *D1B*	0.9	0.734	26.9	7.1				
	FCL *D2*	0.7	0.367	29.5	7.2	4.31	92.77	8.63	
	CLA *D3*	2.7	0.734	30.0	7.1			(G)	
	D4								
13	FCL *D1A*	0.6	0.747	29.7	7.1				
	FCL *D1B*	0.5	0.747	29.5	7.1				
	FCL *D2*	0.6	0.373	28.0	7.0	3.73	72.95	7.47	
	CLA *D3*	2.9	0.747	31.2	6.9			(G)	
	D4								
14	FCL *D1A*	0.9	0.753	29.9	7.0				
	FCL *D1B*	1.1	0.753	30.4	7.0				
	FCL *D2*	1.0	0.377	29.3	6.9	6.23	134.71	12.46	
	CLA *D3*	3.0	0.753	31.6	6.8			(G)	
	D4								
15	FCL *D1A*	0.6	0.747	28.4	7.3				
	FCL *D1B*	0.5	0.747	28.8	7.1				
	FCL *D2*	0.8	0.374	27.0	7.1	4.35	90.07	8.70	
	CLA *D3*	3.0	0.747	28.8	6.9			(G)	
	D4								
16	FCL *D1A*	0.5	0.752	29.0	7.1				
	FCL *D1B*	1.3	0.752	28.0	7.0				
	FCL *D2*	0.7	0.376	27.0	7.1	3.81	78.64	7.63	
	CLA *D3*	2.7	0.752	29.0	6.9			(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: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: August Year: 2019

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*	1.0	0.755	29.1	6.9				
	FCL *D1B*	1.2	0.755	28.9	6.9				
	FCL *D2*	0.7	0.377	29.4	6.9	5.28	109.49	10.55	
	CLA *D3*	2.9	0.755	29.4	6.8			(G)	
	D4								
18	FCL *D1A*	0.9	0.764	29.4	6.9				
	FCL *D1B*	1.1	0.764	29.1	6.9				
	FCL *D2*	0.6	0.382	29.5	6.9	4.91	96.19	9.82	
	CLA *D3*	3.3	0.764	28.6	6.9			(G)	
	D4								
19	FCL *D1A*	1.0	0.771	29.2	7.0				
	FCL *D1B*	1.2	0.771	29.0	6.9				
	FCL *D2*	0.7	0.386	28.9	7.2	4.79	102.76	9.58	
	CLA *D3*	3.3	0.771	24.5	7.2			(G)	
	D4								
20	FCL *D1A*	1.0	0.770	27.4	7.0				
	FCL *D1B*	1.0	0.770	27.6	6.9				
	FCL *D2*	1.1	0.385	26.5	7.2	5.42	119.59	10.84	
	CLA *D3*	3.7	0.770	28.5	7.1			(G)	
	D4								
21	FCL *D1A*	1.1	0.749	28.9	7.1				
	FCL *D1B*	1.3	0.749	28.8	7.0				
	FCL *D2*	0.9	0.374	28.8	7.1	5.80	128.60	11.60	
	CLA *D3*	3.3	0.749	29.3	7.1			(G)	
	D4								
22	FCL *D1A*	1.0	0.716	28.0	7.2				
	FCL *D1B*	1.1	0.716	28.4	7.2				
	FCL *D2*	1.0	0.358	29.2	7.2	5.96	140.01	11.92	
	CLA *D3*	3.2	0.716	31.1	7.1			(G)	
	D4								
23	FCL *D1A*	0.7	0.723	27.3	7.1				
	FCL *D1B*	1.1	0.723	27.9	7.0				
	FCL *D2*	1.1	0.361	27.7	7.1	5.59	126.06	11.17	
	CLA *D3*	3.2	0.723	28.3	7.2			(G)	
	D4								
24	FCL *D1A*	0.8	0.722	27.7	7.1				
	FCL *D1B*	0.8	0.722	28.0	7.0				
	FCL *D2*	1.1	0.361	27.8	7.1	5.77	130.27	11.54	
	CLA *D3*	3.1	0.722	27.9	7.1			(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*	0.8	0.738	27.2	7.0				
	FCL *D1B*	1.2	0.738	27.9	7.0				
	FCL *D2*	1.2	0.369	28.1	7.0	6.16	137.68	12.32	
	CLA *D3*	3.2	0.738	27.4	7.0			(G)	
	D4								
26	FCL *D1A*	0.6	0.738	27.8	7.2				
	FCL *D1B*	0.7	0.738	28.0	7.2				
	FCL *D2*	0.7	0.369	28.1	7.2	4.21	89.59	8.43	
	CLA *D3*	2.9	0.738	28.1	7.2			(G)	
	D4								
27	FCL *D1A*	1.2	0.752	29.0	7.3				
	FCL *D1B*	0.6	0.752	29.0	7.1				
	FCL *D2*	0.8	0.376	28.0	7.3	4.09	90.84	8.17	
	CLA *D3*	2.7	0.752	28.0	7.1			(G)	
	D4								
28	FCL *D1A*	0.6	0.766	28.0	7.1				
	FCL *D1B*	0.6	0.766	28.0	7.0				
	FCL *D2*	0.9	0.383	29.0	7.1	4.93	106.51	9.87	
	CLA *D3*	3.1	0.766	29.0	7.1			(G)	
	D4								
29	FCL *D1A*	0.3	0.761	27.7	7.3				
	FCL *D1B*	0.4	0.761	27.7	7.1				
	FCL *D2*	0.4	0.381	28.1	7.1	2.76	51.36	5.51	
	CLA *D3*	2.7	0.761	29.0	7.2			(G)	
	D4								
30	FCL *D1A*	0.4	0.766	28.0	7.1				
	FCL *D1B*	0.3	0.766	28.5	7.0				
	FCL *D2*	0.6	0.383	27.7	7.1	3.22	63.86	6.45	
	CLA *D3*	2.6	0.766	27.7	7.0			(G)	
	D4								
31	FCL *D1A*	0.4	0.786	27.4	7.3				
	FCL *D1B*	0.4	0.786	26.8	7.2				
	FCL *D2*	0.8	0.393	28.0	7.2	3.57	78.11	7.13	
	CLA *D3*	2.5	0.786	28.2	7.3			(G)	
	D4								
					Max	6.23	140.01	12.46	
					Min	1.59	22.42	3.17	
					Avg	4.47	94.09	8.94	
					SD	1.07	27.21	2.14	

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

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: August

Year: 2019

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	8/7	120	3.45	2.87	16.8	25	0.67			0.67
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		120.00	3.45	2.87	16.81		0.67			0.67
Max		120.00	3.45	2.87	16.81		0.67			0.67
Min		120.00	3.45	2.87	16.81		0.67			0.67

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
120	3.45	2.87	16.8	NA	0.67

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: Adulio Vasquez

Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities
PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** August **Year:** 2019

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
	Reactor Number					Crypto Log Inactivation	Required UV Dose (mJ/cm^2)
Parameters	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)
	OPERATIONAL DATA								
1	1	0.439	0.632	87.22	15.05	1.00	15.05	0.000	0.000
	2	0.523	0.868	87.22	27.07	1.00	27.07	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.436	0.668	86.71	0.00	1.00	0.00	0.013	0.75
	2	0.579	0.890	86.71	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.442	0.677	84.63	0.00	1.00	0.00	0.002	0.50
	2	0.581	0.900	84.63	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.470	0.729	85.49	0.00	1.00	0.00	0.012	0.50
	2	0.609	0.955	85.49	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.438	0.754	85.29	0.00	1.00	0.00	0.008	0.25
	2	0.578	0.949	85.29	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.479	0.644	86.91	0.00	1.00	0.00	0.009	0.50
	2	0.619	0.813	86.91	0.00	1.00	0.00	0.011	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.415	0.725	86.56	0.00	1.00	0.00	0.006	0.50
	2	0.558	0.986	86.56	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.454	0.627	85.20	25.34	1.00	25.34	0.000	0.000
	2	0.599	0.858	85.20	26.29	1.00	26.29	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/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
	OPERATIONAL DATA								
9	1	0.464	0.646	84.27	15.21	1.00	15.21	0.000	0.000
	2	0.609	0.838	84.27	24.19	1.00	24.19	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.444	0.648	83.90	28.40	1.00	28.40	0.000	0.000
	2	0.595	0.822	83.90	17.71	1.00	17.71	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.457	0.664	87.37	26.76	1.00	26.76	0.000	0.000
	2	0.615	0.896	87.37	23.37	1.00	23.37	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.483	0.662	87.42	3.57	1.00	3.57	0.000	0.000
	2	0.603	0.888	87.42	24.29	1.00	24.29	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.454	0.665	86.42	28.66	1.00	28.66	0.000	0.000
	2	0.605	0.888	86.42	27.32	1.00	27.32	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.465	0.709	85.29	16.95	1.00	16.95	0.000	0.25
	2	0.623	0.968	85.29	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.469	0.788	87.91	2.07	1.00	2.07	0.014	0.25
	2	0.606	1.016	87.91	23.86	1.00	23.86	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.478	0.666	88.15	0.00	1.00	0.00	0.004	0.25
	2	0.609	0.875	88.15	0.00	1.00	0.00	0.014	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Adolio Vasquez **Certificate No. and Grade:** WS0014046, B **Date:** September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: August Year: 2019

TRUE

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
	Reactor Number						
Parameters	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5	Crypto Log Inactivation	Required UV Dose (mJ/cm²)
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	0.408	0.636	85.83	34.69	1.00	34.69	0.000	0.25
	2	0.542	0.866	85.83	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.509	0.686	86.83	0.00	1.00	0.00	0.004	0.25
	2	0.646	0.905	86.83	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.476	0.695	86.59	0.00	1.00	0.00	0.004	0.25
	2	0.602	0.907	86.59	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.530	0.707	85.66	30.87	1.00	30.87	0.000	0.000
	2	0.668	0.922	85.66	26.24	1.00	26.24	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.449	0.695	85.44	22.96	1.00	22.96	0.000	0.000
	2	0.576	0.956	85.44	16.20	1.00	16.20	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.465	0.642	83.05	19.36	1.00	19.36	0.000	0.000
	2	0.602	0.886	83.05	8.95	1.00	8.95	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.447	0.696	82.49	29.78	1.00	29.78	0.000	0.000
	2	0.573	0.933	82.49	25.24	1.00	25.24	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.425	0.675	85.98	33.48	1.00	33.48	0.000	0.000
	2	0.537	0.866	85.98	28.32	1.00	28.32	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	0.404	0.641	88.98	34.47	1.00	34.47	0.000	0.25
	2	0.520	0.869	88.98	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.437	0.686	86.15	2.51	1.00	2.51	0.000	0.000
	2	0.570	0.892	86.15	3.32	1.00	3.32	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.465	0.648	85.47	0.00	1.00	0.00	0.009	0.50
	2	0.585	0.850	85.47	0.00	1.00	0.00	0.012	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.470	0.750	86.76	0.00	1.00	0.00	0.005	0.25
	2	0.614	1.131	86.76	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.424	0.671	83.93	0.00	1.00	0.00	0.005	0.25
	2	0.551	0.890	83.93	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.472	0.809	83.00	17.31	1.00	17.31	0.000	0.000
	2	0.620	1.112	83.00	18.94	1.00	18.94	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1	0.397	0.704	87.57	0.00	1.00	0.00	0.018	0.75
	2	0.523	0.941	87.57	0.00	1.00	0.00	0.013	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** August **Year:** 2019

DAILY MINIMUM INACTIVATION

Reactor Range	SUMMARY DATA					Reactor Range	SUMMARY DATA				
	Date	Min Dose (mJ/cm²)	Inactivation Credit Achieved: Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm²)	Min Inactivation: Giardia Log	Virus Log	Crypto Log
1 to 3	1	15.05	3.50	0.00	1.00	1 to 3	9	15.21	3.51	0.00	1.00
	2	0.00*	1.00	0.00	1.00		10	17.71	3.69	0.00	1.00
	3	0.00*	1.00	0.00	1.00		11	23.37	4.00	0.02	1.00
	4	0.00*	1.00	0.00	1.00		12	3.57	1.70	0.00	1.00
	5	0.00*	1.00	0.00	1.00		13	27.32	4.00	0.15	1.00
	6	0.00*	1.00	0.00	1.00		14	0.00*	1.00	0.00	1.00
	7	0.00*	1.00	0.00	1.00		15	2.07*	1.00	0.00	1.00
	8	25.34	4.00	0.09	1.00		16	0.00*	1.00	0.00	1.00

DAILY MINIMUM INACTIVATION

Reactor Range	SUMMARY DATA					Reactor Range	SUMMARY DATA				
	Date	Min Dose (mJ/cm²)	Min Inactivation: Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm²)	Min Inactivation: Giardia Log	Virus Log	Crypto Log
1 to 3	17	0.00*	1.00	0.00	1.00	1 to 3	25	0.00*	1.00	0.00	1.00
	18	0.00*	1.00	0.00	1.00		26	2.51	1.26	0.00	1.00
	19	0.00*	1.00	0.00	1.00		27	0.00*	1.00	0.00	1.00
	20	26.24	4.00	0.12	1.00		28	0.00*	1.00	0.00	1.00
	21	16.20	3.59	0.00	1.00		29	0.00*	1.00	0.00	1.00
	22	8.95	2.69	0.00	1.00		30	17.31	3.66	0.00	1.00
	23	25.24	4.00	0.08	1.00		31	0.00*	1.00	0.00	1.00
	24	28.32	4.00	0.18	1.00						

Total volume of water treated by all CDA reactors:	32.31	MG
Total volume of off-spec water produced by all CDA reactors:	0.25	MG
Percentage of off-spec water produced by all CDA reactors:	0.78	%
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: 1, 8, 19,

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B **Date:** September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831

Month: August **Year:** 2019

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	59 90	60 50	0 99	NA	1 00
		2							
		3							
	1 00	4							
	Calibration Date	5							
		6							
	8/10/19	7							
	New Sensor CF	8							
		9							
	1 00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	68 20	63 80	1 07	NA	1 00
		2							
		3							
	1 00	4							
	Calibration Date	5							
		6							
	8/10/19	7							
	New Sensor CF	8							
		9							
	1 00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	79 80	62 60	1 27		off-line
		2							
		3							
	1 00	4							
	Calibration Date	5							
		6							
	8/10/19	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: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831

Month: August **Year:** 2019

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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Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID 20831

NA

Month: August

Year: 2019

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: 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	8/1/19	78713	88.90	88.70	0.20	NA	NA
	2	8/5/19	78713	90.50	90.20	0.30	NA	NA
	3	8/12/19	78713	90.20	90.40	0.20	NA	NA
	4	8/19/19	78713	90.00	91.10	1.10	NA	NA
	5	8/26/19	78713	89.20	90.60	1.40	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: 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: Adolio Vasquez

Certificate No. and Grade: WS0014046, B

Date: September 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** August **Year:** 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: August Year: 2019

	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	8.51					8.51	104.36					104.36
2	4.50					4.50	1.00					1.00	6.00					6.00	97.00					97.00
3	4.50					4.50	1.00					1.00	4.73					4.73	72.34					72.34
4	4.50					4.50	1.00					1.00	6.13					6.13	109.48					109.48
5	4.50					4.50	1.00					1.00	4.42					4.42	67.50					67.50
6	4.50					4.50	1.00					1.00	3.95					3.95	56.86					56.86
7	4.50					4.50	1.00					1.00	4.70					4.70	69.89					69.89
8	4.50					4.50	1.00					1.00	7.94					7.94	78.82					78.82
9	4.50					4.50	1.00					1.00	5.10					5.10	22.42					22.42
10	4.50					4.50	1.00					1.00	8.50					8.50	100.20					100.20
11	4.50					4.50	1.00					1.00	8.46					8.46	97.92					97.92
12	4.50					4.50	1.00					1.00	6.01					6.01	92.77					92.77
13	4.50					4.50	1.00					1.00	7.73					7.73	73.11					73.11
14	4.50					4.50	1.00					1.00	7.23					7.23	134.71					134.71
15	4.50					4.50	1.00					1.00	5.35					5.35	90.07					90.07
16	4.50					4.50	1.00					1.00	4.81					4.81	78.64					78.64
17	4.50					4.50	1.00					1.00	6.28					6.28	109.49					109.49
18	4.50					4.50	1.00					1.00	5.91					5.91	96.19					96.19
19	4.50					4.50	1.00					1.00	5.79					5.79	102.76					102.76
20	4.50					4.50	1.00					1.00	9.42					9.42	119.71					119.71
21	4.50					4.50	1.00					1.00	9.38					9.38	128.60					128.60
22	4.50					4.50	1.00					1.00	8.65					8.65	140.01					140.01
23	4.50					4.50	1.00					1.00	9.59					9.59	126.14					126.14
24	4.50					4.50	1.00					1.00	9.77					9.77	130.45					130.45
25	4.50					4.50	1.00					1.00	7.16					7.16	137.68					137.68
26	4.50					4.50	1.00					1.00	5.48					5.48	89.59					89.59
27	4.50					4.50	1.00					1.00	5.09					5.09	90.84					90.84
28	4.50					4.50	1.00					1.00	5.93					5.93	106.51					106.51
29	4.50					4.50	1.00					1.00	3.76					3.76	51.36					51.36
30	4.50					4.50	1.00					1.00	6.89					6.89	63.86					63.86
31	4.50					4.50	1.00					1.00	3.57					3.57	78.11					78.11
MIN	4.50					4.50	1.00					1.00	3.57					3.57	22.42					22.42
AVG	4.50					4.50	1.00					1.00	6.52					6.52	94.11					94.11
MAX	4.50					4.50	1.00					1.00	9.77					9.77	140.01					140.01