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: September 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: October 10, 2019

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	108	Number of 4-hour periods when plant was off-line:	72
Number of readings above 0.10 NTU:	7	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:	5.99
		Average log inactivation) (including UV) for viruses:	80.09
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:	6.59
		Number of days with pH below 7.0 in the last disinfection zone:	11.00
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:	45 (at least 30 required) (8)		
Average disinfectant residual value:	1.63	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:	8.03 NTU	Average turbidity value:	2.27 NTU
	Minimum turbidity reading:	0.27 NTU	Standard deviation:	1.956 NTU
	95th percentile value:	5.21 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.20 NTU	Average IFE turbidity value:	0.06 NTU
	Minimum IFEturbidity reading:	0.02 NTU	Standard deviation:	0.022 NTU
	95th percentile IFE value:	0.10 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.15 NTU	Average CFE turbidity value:	0.07 NTU
	Minimum CFE turbidity reading:	0.02 NTU	Standard deviation:	0.025 NTU
	95th percentile CFE value:	0.11 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.30 pH	Average pH value:	7.04 pH
	Minimum pH reading:	6.59 pH	Standard deviation:	0.167 pH
	95th percentile value:	7.27 pH		

SURFACE WATER MONTHLY OPERATING REPORT

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

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:** 1,939

Month: September **Year:** 2019 **Population:** 6,786

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	0.989	0.941	23	140	1.9	1.0					0.09	X	0.08	0.07	0.10	0.10	2.4	
2	1.123	0.941	23	140	4.1	1.5					X	X	0.02	0.03	0.02	0.02	2.6	
3	1.037	0.938	19	140	5.2	3.2					0.02	X	0.02	0.03	0.07	0.07	2.5	
4	0.825	0.680	17	140	4.9	0.9					X	X	X	0.06	0.07	0.08	2.2	
5	0.769	0.773	19	140	4.8	0.8					X	X	X	0.08	0.07	0.10	2.4	
6	0.824	0.668	28	140	5.1	2.2					0.10	X	X	0.07	0.06	0.08	0.7	
7	0.743	0.719	35	120	0.5	1.3					X	X	X	0.06	0.05	0.05	1.3	
8	0.869	0.856	47	120	0.7	2.2					X	X	X	0.05	0.05	0.06	1.2	
9	0.906	0.774	19	120	8.0	3.4					0.08	X	X	0.10	0.09	0.10	3.1	
10	0.913	0.777	27	120	0.9	4.8					X	X	X	0.09	0.09	0.11	1.8	
11	0.918	1.232	33	140	0.5	0.6					X	X	X	0.12	0.10	0.11	2.8	
12	0.877	0.723	28	140	1.3	5.3					X	X	X	0.08	0.08	0.08	2.8	
13	0.890	0.805	15	140	3.6	4.7					X	X	X	0.05	0.05	0.05	2.8	
14	0.921	0.870	21	140	3.2	2.2					X	X	X	0.04	0.04	0.04	2.9	
15	1.045	0.890	15	140	4.2	5.3					0.08	X	X	0.05	0.05	0.07	3.0	
16	0.886	0.820	12	140	4.4	2.9					X	X	X	0.15	0.05	0.09	2.7	
17	0.930	0.835	21	140	4.8	0.3					X	X	X	0.07	0.05	0.05	1.6	
18	0.936	0.930	19	140	4.9	0.3					X	X	X	0.07	0.08	0.07	2.6	
19	0.979	0.904	21	120	4.8	0.4					0.08	X	X	0.10	0.06	0.06	1.9	
20	0.950	0.848	26	120	0.4	0.3					X	X	X	0.06	0.06	0.10	2.5	
21	0.906	0.843	22	120	0.4	0.3					0.11	X	X	0.07	0.05	0.08	3.1	
22	0.951	0.931	28	120	0.4	0.3					0.10	X	X	0.08	0.08	0.06	2.0	
23	1.242	0.946	31	120	0.4	0.4					0.06	0.07	X	0.06	0.05	0.07	3.1	
24	0.995	0.948	19	120	0.5	0.5					X	X	X	0.09	0.09	0.10	2.7	
25	0.974	1.030	19	120	0.4	0.4					X	X	X	0.10	0.09	0.11	2.5	
26	0.994	0.884	38	120	0.4	0.4					0.11	X	X	0.10	0.10	0.10	2.7	
27	1.007	0.826	29	120	5.1	3.1					0.07	X	X	0.05	0.05	0.05	1.8	
28	1.009	0.881	19	120	3.2	1.0					0.05	X	X	0.05	0.04	0.05	2.4	
29	1.024	0.883	44	120	0.6	3.8					0.05	X	X	0.05	0.04	0.05	1.7	
30	1.020	1.016	30	120	1.8	1.4					0.08	X	X	0.05	0.06	0.06	1.8	
31																		
Total	28.452	26.112		Max	8.0	5.3												
Avg	0.948	0.870		Avg	2.7	1.8												
Max	1.242	1.232		95th %	5.2	5.1												
Min	0.743	0.668		Min	0.4	0.3												
				95th percentile based on data from all basins						5.2								

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 Vasquez **Certificate No. and Grade:** WS0014046, B **Date:** October 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: September 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		0.08		0.08		0.05													
2	0.10		0.06		0.06		0.07													
3	0.08		0.09		0.06		0.10													
4	0.08		0.08		0.08		0.08													
5	0.04		0.03		0.05		0.09													
6	0.08		0.03		0.06		0.02													
7	0.05		0.04		0.05		0.04													
8	0.06		0.04		0.06		0.04													
9	0.08		0.06		0.08		0.10													
10	0.06		0.06		0.06		0.06													
11	0.08		0.05		0.06		0.05													
12	0.06		0.06		0.06		0.10													
13	0.06		0.04		0.05		0.07													
14	0.05		0.04		0.04		0.07													
15	0.10		0.03		0.06		0.04													
16	0.05		0.04		0.04		0.04													
17	0.20		0.04		0.04		0.05													
18	0.05		0.04		0.05		0.05													
19	0.06		0.04		0.06		0.04													
20	0.05		0.05		0.07		0.06													
21	0.04		0.04		0.07		0.04													
22	0.06		0.05		0.07		0.07													
23	0.07		0.05		0.07		0.04													
24	0.06		0.06		0.08		0.06													
25	0.08		0.05		0.08		0.06													
26	0.06		0.06		0.09		0.10													
27	0.05		0.04		0.03		0.03													
28	0.06		0.05		0.04		0.04													
29	0.06		0.05		0.04		0.04													
30	0.06		0.06		0.06		0.06													
31																				

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: Addie Vasquez Certificate No. and Grade: WS0014046, B Date: October 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: September 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

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time[T]
1	FCL *D1A*	0.6	0.751	27.4	7.2				
	FCL *D1B*	0.4	0.751	27.3	7.2				
	FCL *D2*	0.7	0.375	27.4	7.2	3.62	77.70	7.25	
	CLA *D3*	2.5	0.751	28.3	7.2			(G)	
	D4								
2	FCL *D1A*	0.5	0.763	25.7	7.9				
	FCL *D1B*	0.4	0.763	25.0	7.0				
	FCL *D2*	1.0	0.382	27.3	7.1	4.50	102.06	9.01	
	CLA *D3*	2.8	0.763	27.1	7.2			(G)	
	D4								
3	FCL *D1A*	0.4	0.767	26.7	7.3				
	FCL *D1B*	0.6	0.767	25.8	7.2				
	FCL *D2*	0.6	0.383	27.9	7.2	3.43	69.10	6.86	
	CLA *D3*	2.9	0.767	27.5	7.3			(G)	
	D4								
4	FCL *D1A*	0.9	0.774	26.4	7.0				
	FCL *D1B*	0.7	0.774	26.4	6.7				
	FCL *D2*	0.7	0.387	25.0	7.0	3.64	73.21	7.27	
	CLA *D3*	2.3	0.774	26.5	6.6			(G)	
	D4								
5	FCL *D1A*	0.5	0.765	27.0	7.0				
	FCL *D1B*	0.7	0.765	26.0	6.9				
	FCL *D2*	0.9	0.383	26.0	7.0	4.07	84.88	8.14	
	CLA *D3*	2.5	0.765	25.0	6.9			(G)	
	D4								
6	FCL *D1A*	0.5	0.747	26.3	7.0				
	FCL *D1B*	0.4	0.747	26.9	7.0				
	FCL *D2*	0.3	0.374	27.0	7.1	1.92	35.13	3.84	
	CLA *D3*	1.7	0.747	26.2	7.0			(G)	
	D4								
7	FCL *D1A*	0.4	0.731	28.0	6.9				
	FCL *D1B*	0.4	0.731	27.6	6.9				
	FCL *D2*	0.7	0.365	26.7	7.2	3.67	77.11	7.34	
	CLA *D3*	2.4	0.731	27.4	7.1			(G)	
	D4								
8	FCL *D1A*	0.7	0.730	28.2	7.0				
	FCL *D1B*	0.9	0.730	28.2	7.0				
	FCL *D2*	0.6	0.365	28.4	7.2	4.18	80.54	8.37	
	CLA *D3*	3.7	0.730	28.7	7.1			(G)	
	D4								

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time[T]
9	FCL *D1A*	0.4	0.736	27.2	7.1				
	FCL *D1B*	0.7	0.736	27.5	7.0				
	FCL *D2*	0.7	0.368	26.2	7.2	3.95	74.35	7.90	
	CLA *D3*	3.8	0.736	27.4	7.1			(G)	
	D4								
10	FCL *D1A*	0.9	0.768	26.2	7.3				
	FCL *D1B*	0.9	0.768	27.8	7.1				
	FCL *D2*	0.8	0.384	27.7	7.2	4.52	98.16	9.03	
	CLA *D3*	3.2	0.768	27.4	7.3			(G)	
	D4								
11	FCL *D1A*	0.8	0.784	28.3	7.2				
	FCL *D1B*	0.8	0.784	28.2	7.2				
	FCL *D2*	0.9	0.392	27.8	7.3	4.50	101.95	9.00	
	CLA *D3*	3.2	0.784	28.3	7.2			(G)	
	D4								
12	FCL *D1A*	0.9	0.773	26.5	6.6				
	FCL *D1B*	0.9	0.773	26.7	6.9				
	FCL *D2*	0.6	0.387	26.7	6.8	4.08	77.06	8.16	
	CLA *D3*	2.8	0.773	27.8	6.9			(G)	
	D4								
13	FCL *D1A*	0.5	0.741	26.6	7.0				
	FCL *D1B*	0.6	0.741	27.5	7.0				
	FCL *D2*	0.8	0.373	27.0	7.0	4.56	87.78	9.12	
	CLA *D3*	3.8	0.741	25.9	7.1			(G)	
	D4								
14	FCL *D1A*	0.5	0.762	26.6	7.0				
	FCL *D1B*	0.6	0.762	26.5	6.9				
	FCL *D2*	0.8	0.381	25.0	7.0	4.01	73.93	8.03	
	CLA *D3*	3.7	0.762	25.7	7.0			(G)	
	D4								
15	FCL *D1A*	0.7	0.778	22.2	7.0				
	FCL *D1B*	0.8	0.778	22.4	7.1				
	FCL *D2*	0.6	0.389	24.9	7.1	3.19	60.55	6.37	
	CLA *D3*	3.1	0.778	24.2	6.7			(G)	
	D4								
16	FCL *D1A*	0.5	0.791	25.4	7.6				
	FCL *D1B*	0.6	0.791	26.0	7.2				
	FCL *D2*	0.3	0.395	26.6	7.2	2.09	36.36	4.17	
	CLA *D3*	2.8	0.791	27.8	7.2			(G)	
	D4								

NOTE: [T] = 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: October 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: September 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

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time
17	FCL *D1A*	0.4	0.815	26.0	7.2				
	FCL *D1B*	0.5	0.815	26.1	7.1				
	FCL *D2*	0.4	0.408	28.3	7.1	2.41	44.79	4.82	
	CLA *D3*	2.5	0.815	29.1	7.1			(G)	
	D4								
18	FCL *D1A*	0.1	0.798	27.4	7.1				
	FCL *D1B*	0.2	0.798	27.3	7.1				
	FCL *D2*	0.2	0.399	27.5	7.1	1.56	20.28	3.12	
	CLA *D3*	2.7	0.798	27.5	7.1			(G)	
	D4								
19	FCL *D1A*	0.8	0.783	28.0	7.0				
	FCL *D1B*	0.8	0.783	27.7	6.9				
	FCL *D2*	0.8	0.392	25.5	7.1	4.43	88.04	8.86	
	CLA *D3*	3.6	0.783	27.1	7.1			(G)	
	D4								
20	FCL *D1A*	0.6	0.748	27.8	7.0				
	FCL *D1B*	0.5	0.748	27.7	7.0				
	FCL *D2*	1.0	0.374	28.1	7.0	5.05	106.45	10.10	
	CLA *D3*	3.0	0.748	29.0	7.0			(G)	
	D4								
21	FCL *D1A*	1.7	0.757	27.2	7.2				
	FCL *D1B*	1.9	0.757	27.6	7.1				
	FCL *D2*	1.1	0.379	27.2	7.3	6.02	151.43	12.04	
	CLA *D3*	3.1	0.757	28.3	7.3			(G)	
	D4								
22	FCL *D1A*	1.0	0.769	27.6	7.2				
	FCL *D1B*	0.9	0.769	28.0	7.1				
	FCL *D2*	0.5	0.384	27.1	7.2	3.86	74.51	7.73	
	CLA *D3*	3.7	0.769	29.0	7.1			(G)	
	D4								
23	FCL *D1A*	1.2	0.775	27.0	7.0				
	FCL *D1B*	1.2	0.775	27.0	7.0				
	FCL *D2*	1.2	0.388	26.2	7.3	5.77	133.15	11.54	
	CLA *D3*	3.9	0.755	24.6	7.0			(G)	
	D4								
24	FCL *D1A*	1.4	0.796	27.0	7.1				
	FCL *D1B*	1.6	0.796	28.0	7.0				
	FCL *D2*	1.0	0.398	28.0	7.2	5.52	128.04	11.05	
	CLA *D3*	3.4	0.796	28.0	7.2			(G)	
	D4								

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time
25	FCL *D1A*	1.3	0.780	27.0	7.1				
	FCL *D1B*	1.4	0.780	27.0	7.0				
	FCL *D2*	0.6	0.390	27.0	7.1	4.28	92.74	8.56	
	CLA *D3*	2.8	0.780	26.0	7.1			(G)	
	D4								
26	FCL *D1A*	0.6	0.744	27.4	7.0				
	FCL *D1B*	0.8	0.744	27.0	7.0				
	FCL *D2*	0.7	0.372	26.8	7.1	4.29	84.37	8.57	
	CLA *D3*	3.6	0.744	31.6	7.0			(G)	
	D4								
27	FCL *D1A*	0.5	0.734	27.4	7.3				
	FCL *D1B*	0.3	0.734	27.5	7.0				
	FCL *D2*	0.2	0.367	27.3	7.3	2.34	35.97	4.68	
	CLA *D3*	3.3	0.734	30.5	7.0			(G)	
	D4								
28	FCL *D1A*	0.6	0.751	27.0	7.0				
	FCL *D1B*	0.6	0.751	26.8	7.0				
	FCL *D2*	0.5	0.375	27.4	7.1	3.41	64.11	6.81	
	CLA *D3*	3.0	0.751	29.3	7.0			(G)	
	D4								
29	FCL *D1A*	0.6	0.760	27.8	7.0				
	FCL *D1B*	0.7	0.760	28.1	7.0				
	FCL *D2*	0.7	0.380	27.3	7.0	4.19	80.21	8.39	
	CLA *D3*	3.5	0.760	30.9	6.9			(G)	
	D4								
30	FCL *D1A*	0.6	0.778	28.3	6.9				
	FCL *D1B*	0.7	0.778	28.3	6.9				
	FCL *D2*	0.8	0.389	28.2	7.0	4.61	88.35	9.22	
	CLA *D3*	3.7	0.778	28.7	6.8			(G)	
	D4								
31	*D1A*								
	D1B								
	D2								
	D3								
	D4								
	Max					6.02	151.43	12.04	
	Min					1.56	20.28	3.12	
	Avg					3.92	80.08	7.84	
	SD					1.05	28.41	2.11	

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: October 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: September

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	9/12	140	2.92	2.72	6.8	15	0.46			0.46
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		140.00	2.92	2.72	6.85		0.46			0.46
Max		140.00	2.92	2.72	6.85		0.46			0.46
Min		140.00	2.92	2.72	6.85		0.46			0.46

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
140	2.92	2.72	6.8	NA	0.46

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. and Grade: WS0014046, B

Date: October 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: September Year: 2019

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
	Reactor Number						
Parameters	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5	Crypto Log Inactivation	Required UV Dose (mJ/cm^2)
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	0.392	0.678	84.68	31.96	1.00	31.96	0.000	0.25
	2	0.507	0.878	84.68	0.00	1.00	0.00	0.003	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.431	0.657	86.44	0.00	1.00	0.00	0.002	0.25
	2	0.563	0.896	86.44	0.00	1.00	0.00	0.003	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.410	0.750	79.87	31.10	1.00	31.10	0.000	0.25
	2	0.537	0.950	79.87	0.00	1.00	0.00	0.010	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.330	0.744	86.12	30.02	1.00	30.02	0.000	0.000
	2	0.442	0.992	86.12	24.85	1.00	24.85	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.305	0.658	84.66	0.00	1.00	0.00	0.004	0.25
	2	0.399	0.906	84.66	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.318	0.685	89.05	0.00	1.00	0.00	0.010	0.25
	2	0.412	0.900	89.05	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.285	0.638	89.18	36.47	1.00	36.47	0.000	0.25
	2	0.364	0.868	89.18	2.15	1.00	2.15	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.333	0.658	88.25	2.53	1.00	2.53	0.000	0.000
	2	0.417	0.903	88.25	4.25	1.00	4.25	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	0.343	0.686	85.83	0.00	1.00	0.00	0.010	0.25
	2	0.443	0.867	85.83	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.353	0.681	86.12	0.00	1.00	0.00	0.004	0.25
	2	0.494	0.913	86.12	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.344	0.713	85.07	0.00	1.00	0.00	0.005	0.25
	2	0.480	0.942	85.07	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.345	0.753	88.42	30.15	1.00	30.15	0.000	0.000
	2	0.471	1.040	88.42	24.96	1.00	24.96	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.366	0.693	88.22	26.17	1.00	26.17	0.000	0.25
	2	0.472	0.955	88.22	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.359	0.684	86.73	31.80	1.00	31.80	0.000	0.000
	2	0.447	0.955	86.73	26.26	1.00	26.26	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.415	0.859	89.35	0.00	1.00	0.00	0.012	0.25
	2	0.506	1.069	89.35	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.365	0.777	87.61	0.00	1.00	0.00	0.006	0.25
	2	0.461	0.927	87.61	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B Date: October 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: September 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/cm^2)
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							
17	1	0.361	0.848	89.74	28.18	1.00	28.18	0.000	0.000
	2	0.471	1.166	89.74	22.69	1.00	22.69	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.361	0.766	87.83	30.66	1.00	30.66	0.000	0.000
	2	0.479	1.009	87.83	25.74	1.00	25.74	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.388	0.727	84.59	14.22	1.00	14.22	0.000	0.000
	2	0.521	0.957	84.59	13.10	1.00	13.10	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.355	0.678	85.17	34.58	1.00	34.58	0.000	0.000
	2	0.479	0.934	85.17	25.53	1.00	25.53	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.345	0.653	84.90	28.53	1.00	28.53	0.000	0.000
	2	0.465	0.892	84.90	23.75	1.00	23.75	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.356	0.683	87.74	5.23	1.00	5.23	0.000	0.000
	2	0.489	0.943	87.74	25.32	1.00	25.32	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.464	0.812	90.23	29.34	1.00	29.34	0.000	0.25
	2	0.636	1.134	90.23	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.408	0.844	82.39	0.00	1.00	0.00	0.002	0.25
	2	0.546	1.175	82.39	0.00	1.00	0.00	0.002	
	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							
25	1	0.392	0.693	80.58	9.32	1.00	9.32	0.000	0.000
	2	0.513	0.945	80.58	22.65	1.00	22.65	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.388	0.726	85.37	0.00	1.00	0.00	0.002	0.25
	2	0.515	1.077	85.37	0.00	1.00	0.00	0.002	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.377	0.633	89.79	22.64	1.00	22.64	0.000	0.25
	2	0.495	0.859	89.79	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.405	0.671	82.63	29.76	1.00	29.76	0.000	0.000
	2	0.528	0.908	82.63	24.59	1.00	24.59	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.406	0.700	84.68	27.11	1.00	27.11	0.000	0.000
	2	0.519	0.922	84.68	4.21	1.00	4.21	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.397	0.674	79.68	18.41	1.00	18.41	0.000	0.000
	2	0.519	0.923	79.68	23.88	1.00	23.88	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1								
	2								
	3								
	4								
	5								

SUBMITTED BY: Adolfo Vasquez

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

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm^2)	Min Inactivation Credit Achieved: Giardia Log	Virus Log	Crypto Log	Reactor Range	Date	Min Dose (mJ/cm^2)	Min Inactivation: Giardia Log	Virus Log	Crypto Log
1 to 3	1	0.00*	1.00	0.00	1.00	1 to 3	9	0.00*	1.00	0.00	1.00
	2	0.00*	1.00	0.00	1.00		10	0.00*	1.00	0.00	1.00
	3	0.00*	1.00	0.00	1.00		11	0.00*	1.00	0.00	1.00
	4	24.85	4.00	0.00	1.00		12	24.96	4.00	0.08	1.00
	5	0.00*	1.00	0.00	1.00		13	0.00*	1.00	0.00	1.00
	6	0.00*	1.00	0.00	1.00		14	26.26	4.00	0.12	1.00
	7	2.15*	1.03	0.00	1.00		15	0.00*	1.00	0.00	1.00
	8	2.53	1.27	0.00	1.00		16	0.00*	1.00	0.00	1.00

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm^2)	Min Inactivation: Giardia Log	Virus Log	Crypto Log	Reactor Range	Date	Min Dose (mJ/cm^2)	Min Inactivation: Giardia Log	Virus Log	Crypto Log
1 to 3	17	22.69	4.00	0.00	1.00	1 to 3	25	9.32	2.75	0.00	1.00
	18	25.74	4.00	0.10	1.00		26	0.00*	1.00	0.00	1.00
	19	13.10	3.26	0.00	1.00		27	0.00*	1.00	0.00	1.00
	20	25.53	4.00	0.09	1.00		28	24.59	4.00	0.06	1.00
	21	23.75	4.00	0.04	1.00		29	4.21	1.85	0.00	1.00
	22	5.23	2.01	0.00	1.00		30	18.41	3.74	0.00	1.00
	23	0.00*	1.00	0.00	1.00		31				1.00
	24	0.00*	1.00	0.00	1.00						

Total volume of water treated by all CDA reactors:	25.69	MG
Total volume of off-spec water produced by all CDA reactors:	0.15	MG
Percentage of off-spec water produced by all CDA reactors:	0.57	%
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:

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B Date: October 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: September 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	63.20	59.90	1.06	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	9/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	68.00	74.90	0.91	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	9/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	73.50	64.50	1.14		off-line
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	9/1/19	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: October 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: September Year: 2019

CALIBRATION DATA

CDA Reactor Number	UV Sensor Calibration Report for Calculated Dose Reactors									
	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm^2)	Ref Sensor Reading (mJ/cm^2)	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

CDA Reactor Number	UV Sensor Calibration Report for Calculated Dose Reactors									
	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm^2)	Ref Sensor Reading (mJ/cm^2)	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							

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0014046, B

Date: October 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 Month: September Year: 2019

#VALUE!

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	9/1/19	78713	90.30	90.60	0.30	NA	NA
	2	9/9/19	78713	89.60	92.20	2.60	YES	NA
	3	9/16/19	78713	92.40	92.00	0.40	NA	NA
	4	9/23/19	78713	91.10	91.40	0.30	NA	NA
	5	9/30/19	78713	89.50	91.10	1.60	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: Addie Vasquez

Certificate No. and Grade: WS0014046, B

Date: October 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:** September **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																	
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:** September **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						TRUE						TRUE						TRUE					
Train 2		FALSE						FALSE						FALSE						FALSE				
Train 3			FALSE						FALSE						FALSE						FALSE			
Train 4				FALSE						FALSE						FALSE						FALSE		
Train 5					FALSE						FALSE						FALSE						FALSE	
						Minimum						Minimum						Minimum						Minimum
1	4.50					4.50	1.00					1.00	4.62					4.62	77.70					77.70
2	4.50					4.50	1.00					1.00	4.62					4.62	102.06					102.06
3	4.50					4.50	1.00					1.00	4.43					4.43	69.10					69.10
4	4.50					4.50	1.00					1.00	7.64					7.64	73.21					73.21
5	4.50					4.50	1.00					1.00	5.07					5.07	84.88					84.88
6	4.50					4.50	1.00					1.00	2.92					2.92	35.13					35.13
7	4.50					4.50	1.00					1.00	4.70					4.70	77.11					77.11
8	4.50					4.50	1.00					1.00	5.46					5.46	80.54					80.54
9	4.50					4.50	1.00					1.00	4.95					4.95	74.35					74.35
10	4.50					4.50	1.00					1.00	5.52					5.52	98.16					98.16
11	4.50					4.50	1.00					1.00	5.50					5.50	101.95					101.95
12	4.50					4.50	1.00					1.00	8.08					8.08	77.13					77.13
13	4.50					4.50	1.00					1.00	5.56					5.56	87.78					87.78
14	4.50					4.50	1.00					1.00	8.01					8.01	74.05					74.05
15	4.50					4.50	1.00					1.00	4.19					4.19	60.55					60.55
16	4.50					4.50	1.00					1.00	3.09					3.09	36.36					36.36
17	4.50					4.50	1.00					1.00	6.41					6.41	44.79					44.79
18	4.50					4.50	1.00					1.00	5.56					5.56	20.38					20.38
19	4.50					4.50	1.00					1.00	7.69					7.69	88.04					88.04
20	4.50					4.50	1.00					1.00	9.05					9.05	106.54					106.54
21	4.50					4.50	1.00					1.00	10.02					10.02	151.46					151.46
22	4.50					4.50	1.00					1.00	5.87					5.87	74.51					74.51
23	4.50					4.50	1.00					1.00	6.77					6.77	133.15					133.15
24	4.50					4.50	1.00					1.00	6.52					6.52	128.04					128.04
25	4.50					4.50	1.00					1.00	7.02					7.02	92.74					92.74
26	4.50					4.50	1.00					1.00	5.29					5.29	84.37					84.37
27	4.50					4.50	1.00					1.00	3.34					3.34	35.97					35.97
28	4.50					4.50	1.00					1.00	7.41					7.41	64.18					64.18
29	4.50					4.50	1.00					1.00	6.04					6.04	80.21					80.21
30	4.50					4.50	1.00					1.00	8.35					8.35	88.35					88.35
31																								
MIN	4.50					4.50	1.00					1.00	2.92					2.92	20.38					20.38
AVG	4.50					4.50	1.00					1.00	5.99					5.99	80.09					80.09
MAX	4.50					4.50	1.00					1.00	10.02					10.02	151.46					151.46