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: June 2018

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: WS0012772, B

Date: July 16, 2018

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	142	Number of 4-hour periods when plant was off-line:	38
Number of readings above 0.10 NTU:	50	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 days when plant was on-line but individual filter turbidity data was not collected:	0
Number of readings above 0.5 NTU:	0	Number of days with readings above 1.0 NTU:	0 (2)
Number of readings above 1.0 NTU:	0	Number of days with readings above 5.0 NTU:	0 (3)
Maximum allowable turbidity level:	0.3		
Percentage of readings above this limit:	0.0 % (1)		

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:	0.0	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:	12.92
Number of days with low inactivation (including UV) for more than 4.0 consecutive hours:	0 (4)	Average log inactivation) (including UV) for viruses:	152.79
		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 a low residual for more than 4.0 consecutive hours:	0 (5)	Number of days with pH below 7.0 in the last disinfection zone:	9.00
		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 30 required) (8)		
Average disinfectant residual value:	2.03	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: 194.00 NTU	Minimum turbidity reading: 1.28 NTU	95th percentile value: 3.52 NTU	Average turbidity value: 5.46 NTU; Standard deviation: 24.555 NTU
IFE Stastical Summary	Maximum IFE turbidity reading: 0.00 NTU	Minimum IFEturbidity reading: 0.29 NTU	95th percentile IFE value: 0.05 NTU	Average IFE turbidity value: 0.01 NTU; Standard deviation: 0.136 NTU
CFE Stastical Summary	Maximum CFE turbidity reading: 0.18 NTU	Minimum CFE turbidity reading: 0.04 NTU	95th percentile CFE value: 0.15 NTU	Average CFE turbidity value: 0.10 NTU; Standard deviation: 0.024 NTU

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading: 7.79 pH	Minimum pH reading: 6.76 pH	95th percentile value: 7.60 pH	Average pH value: 7.12 pH; Standard deviation: 0.252 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:** 1,956

Month: June **Year:** 2018 **Population:** 6,846

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	1.338	0.837	15	100	1.7	1.9					0.12	X	0.12	0.11	0.10	0.11	3.7	
2	1.269	0.800	20	100	1.8	1.7					0.12	0.11	0.11	0.10	0.10	0.09	3.6	
3	1.264	0.834	33	100	2.3	1.8					0.10	X	0.11	0.10	0.11	0.10	3.0	
4	1.382	0.796	10	80	2.9	2.2					0.10	X	0.11	0.11	0.12	0.18	3.0	
5	1.368	0.828	11	80	2.0	1.5					0.15	X	X	0.15	0.13	0.13	2.0	
6	1.256	0.849	15	100	3.2	2.7					0.15	X	0.13	0.11	0.11	0.10	2.8	
7	1.313	0.620	15	100	2.5	2.8					0.10	X	0.10	0.09	0.12	0.10	3.3	
8	1.241	1.024	11	100	2.3	5.1					0.11	X	0.10	0.09	0.08	0.09	3.3	
9	1.331	0.806	18	100	3.9	2.6					0.11	X	0.11	0.13	0.10	0.10	2.7	
10	1.342	0.815	19	100	1.6	2.6					0.13	X	X	0.12	0.11	0.11	3.4	
11	1.356	0.892	12	100	1.5	3.1					0.11	X	0.09	0.11	0.13	0.13	3.5	
12	1.412	0.812	14	100	1.6	2.4					0.15	X	0.10	0.11	0.15	0.15	3.0	
13	1.188	0.751	12	100	3.5	2.2					0.13	X	0.18	0.10	0.10	0.10	2.9	
14	1.229	0.794	18	100	2.9	2.1					X	X	0.10	0.10	0.10	0.10	2.5	
15	1.097	0.699	16	100	2.2	1.6					0.11	X	0.10	0.09	0.10	0.10	2.9	
16	1.127	0.751	22	100	1.7	1.8					X	X	0.10	0.10	0.10	0.10	2.8	
17	1.208	0.753	18	100	1.5	1.6					0.10	X	0.08	0.09	0.09	0.09	3.5	
18	1.275	0.813	18	140	1.6	2.0					0.09	X	0.10	0.08	0.07	0.08	3.4	
19	1.174	0.697	12	120	2.0	1.6					0.08	X	0.08	0.09	0.09	0.09	3.3	
20	0.928	0.754	10	120	3.3	2.2					X	X	0.08	0.08	X	0.08	3.0	
21	1.075	0.425	20	120	2.9	1.9					0.09	X	0.09	0.09	0.09	0.08	2.8	
22	0.978	0.609	10	120	2.2	2.2					X	X	0.07	0.06	0.07	0.05	1.7	
23	1.053	0.685	32	100	2.7	1.3					0.05	X	X	0.04	0.04	0.05	1.2	
24	1.159	0.727	29	100	2.1	1.6					0.05	0.05	X	0.05	0.08	0.08	1.8	
25	1.558	0.794	19	100	2.6	3.3					0.07	X	0.07	0.08	0.08	0.09	4.2	
26	1.393	0.749	20	100	3.3	2.7					0.09	X	0.10	0.11	0.11	0.11	3.8	
27	1.157	0.759	20	100	194.0	2.0					0.10	X	0.10	0.11	0.12	0.10	3.2	
28	1.116	0.760	20	100	2.1	1.7					0.10	X	0.10	0.12	0.11	0.11	2.9	
29	1.400	0.772	16	120	2.3	1.8					0.11	X	X	0.10	0.10	0.09	3.1	
30	1.283	0.778	25	120	1.8	2.2					0.09	X	0.07	0.08	0.08	0.07	3.4	
31																		
Total	37.270	22.983		Max	194.0	5.1												
Avg	1.242	0.766		Avg	8.7	2.2												
Max	1.558	1.024		95th %	3.7	3.2												
Min	0.928	0.425		Min	1.5	1.3												
				95th percentile based on data from all basins						3.5								

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: Tomas Sanchez Jr. **Certificate No. and Grade:** WS0012772, B **Date:** July 16, 2018

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: June Year: 2018

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	0.11		0.13		0.22		0.15													
2	0.11		0.12		0.15		0.17													
3	0.13		0.12		0.14		0.11													
4	0.15		0.13		0.17		0.14													
5	0.10		0.13		0.19		0.20													
6	0.08		0.11		0.14		0.14													
7	0.14		0.12		0.13		0.13													
8	0.12		0.14		0.14		0.15													
9	0.20		0.20		0.20		0.19													
10	0.22		0.19		0.16		0.18													
11	0.16		0.27		0.18		0.15													
12	0.17		0.13		0.14		0.19													
13	0.08		0.11		0.10		0.12													
14	0.14		0.25		0.15		0.12													
15	0.12		0.18		0.19		0.16													
16	0.08		0.29		0.29		0.12													
17	0.07		0.20		0.20		0.13													
18	0.10		0.24		0.17		0.28													
19	0.08		0.01		0.13		0.13													
20	0.06		0.07		0.09		0.11													
21	0.06		0.10		0.13		0.11													
22	0.06		0.07		0.08		0.10													
23	0.06		0.07		0.11		0.17													
24	0.08		0.20		0.12		0.13													
25	0.07		0.08		0.14		0.10													
26	0.10		0.10		0.11		0.08													
27	0.08		0.12		0.12		0.10													
28	0.10		0.11		0.12		0.10													
29	0.10		0.15		0.24		0.19													
30	0.08		0.27		0.10		0.07													
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: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B

Date: July 16, 2018

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: June Year: 2018

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*	1.2	0.757	28.5	7.2				
	FCL *D1B*	1.4	0.757	28.7	6.9				
	FCL *D2*	1.3	0.378	26.0	7.0	6.38	145.69	12.76	
	CLA *D3*	3.6	0.757	26.8	6.8			(G)	
	D4								
2	FCL *D1A*	1.3	0.759	28.5	7.1				
	FCL *D1B*	1.3	0.759	28.5	7.0				
	FCL *D2*	1.4	0.379	26.8	7.1	7.03	165.94	14.05	
	CLA *D3*	3.7	0.759	28.9	6.8			(G)	
	D4								
3	FCL *D1A*	1.0	0.779	28.6	7.1				
	FCL *D1B*	1.1	0.779	28.6	7.0				
	FCL *D2*	1.2	0.389	26.9	7.0	6.13	138.44	12.27	
	CLA *D3*	3.4	0.779	28.3	7.0			(G)	
	D4								
4	FCL *D1A*	0.7	0.789	28.5	7.2				
	FCL *D1B*	0.8	0.789	28.1	7.0				
	FCL *D2*	1.2	0.394	25.9	6.9	5.39	112.68	10.78	
	CLA *D3*	3.5	0.789	27.7	6.8			(G)	
	D4								
5	FCL *D1A*	0.8	0.792	26.5	7.2				
	FCL *D1B*	1.1	0.792	28.5	7.0				
	FCL *D2*	1.1	0.396	26.0	7.1	4.87	107.39	9.75	
	CLA *D3*	3.5	0.792	29.0	6.8			(G)	
	D4								
6	FCL *D1A*	0.9	0.794	28.3	7.0				
	FCL *D1B*	1.6	0.794	27.6	7.2				
	FCL *D2*	1.3	0.397	27.2	7.1	6.02	139.82	12.04	
	CLA *D3*	3.3	0.794	27.9	7.1			(G)	
	D4								
7	FCL *D1A*	1.2	0.800	29.1	7.6				
	FCL *D1B*	1.1	0.800	29.1	7.4				
	FCL *D2*	0.6	0.400	27.3	7.2	4.15	89.03	8.30	
	CLA *D3*	3.4	0.800	28.3	7.1			(G)	
	D4								
8	FCL *D1A*	1.3	0.675	28.3	6.9				
	FCL *D1B*	1.4	0.675	29.7	6.7				
	FCL *D2*	0.4	0.337	26.6	7.2	4.88	91.91	9.76	
	CLA *D3*	4.0	0.675	28.2	6.9			(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*	0.3	0.824	27.7	7.1				
	FCL *D1B*	0.3	0.824	27.8	7.1				
	FCL *D2*	0.5	0.412	27.1	7.1	2.90	46.99	5.79	
	CLA *D3*	4.0	0.824	28.6	7.1			(G)	
	D4								
10	FCL *D1A*	0.4	0.807	27.1	7.1				
	FCL *D1B*	0.5	0.807	27.3	7.1				
	FCL *D2*	0.9	0.403	27.2	7.7	3.67	82.62	7.33	
	CLA *D3*	3.7	0.807	25.4	7.1			(G)	
	D4								
11	FCL *D1A*	0.7	0.820	28.1	7.1				
	FCL *D1B*	0.5	0.820	28.2	7.0				
	FCL *D2*	0.8	0.410	27.8	7.2	3.97	80.92	7.95	
	CLA *D3*	3.6	0.820	28.2	7.5			(G)	
	D4								
12	FCL *D1A*	0.5	0.820	28.0	7.1				
	FCL *D1B*	0.6	0.820	28.2	7.0				
	FCL *D2*	0.3	0.410	27.6	7.1	2.64	42.17	5.28	
	CLA *D3*	3.6	0.820	26.2	7.2			(G)	
	D4								
13	FCL *D1A*	1.0	0.833	27.1	7.1				
	FCL *D1B*	0.8	0.833	27.2	7.0				
	FCL *D2*	1.1	0.416	26.9	7.3	4.71	107.33	9.41	
	CLA *D3*	3.4	0.833	26.2	7.0			(G)	
	D4								
14	FCL *D1A*	1.5	0.862	28.5	7.1				
	FCL *D1B*	1.3	0.786	28.6	7.2				
	FCL *D2*	1.3	0.431	25.9	7.1	5.73	135.01	11.45	
	CLA *D3*	3.5	0.862	28.4	7.6			(G)	
	D4								
15	FCL *D1A*	1.9	0.843	27.6	7.3				
	FCL *D1B*	1.6	0.843	27.7	7.3				
	FCL *D2*	1.6	0.421	27.8	7.6	6.26	174.81	12.52	
	CLA *D3*	3.7	0.843	26.9	7.0			(G)	
	D4								
16	FCL *D1A*	1.8	0.726	27.0	7.4				
	FCL *D1B*	1.8	0.726	27.0	7.3				
	FCL *D2*	1.8	0.363	27.0	7.4	7.74	218.44	15.47	
	CLA *D3*	3.5	0.726	27.0	7.6			(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: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B

Date: July 16, 2018

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:** June **Year:** 2018

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*	1.9	0.727	28.3	7.4				
	FCL *D1B*	1.8	0.727	28.7	7.4				
	FCL *D2*	1.9	0.363	27.8	7.4	8.61	243.80	17.22	
	CLA *D3*	4.2	0.727	26.8	7.8			(G)	
	D4								
18	FCL *D1A*	1.6	0.747	28.3	7.4				
	FCL *D1B*	1.5	0.747	28.7	7.4				
	FCL *D2*	1.7	0.373	27.2	7.6	7.02	200.94	14.05	
	CLA *D3*	3.6	0.747	30.1	7.2			(G)	
	D4								
19	FCL *D1A*	1.2	0.748	27.6	7.5				
	FCL *D1B*	1.3	0.748	27.8	7.5				
	FCL *D2*	1.3	0.374	26.6	7.7	5.61	151.11	11.21	
	CLA *D3*	3.7	0.748	28.3	7.4			(G)	
	D4								
20	FCL *D1A*	1.3	0.741	26.0	7.0				
	FCL *D1B*	1.5	0.741	26.8	7.0				
	FCL *D2*	1.4	0.370	26.7	7.2	6.66	160.71	13.32	
	CLA *D3*	3.5	0.741	27.9	6.8			(G)	
	D4								
21	FCL *D1A*	2.2	0.768	26.3	7.3				
	FCL *D1B*	2.0	0.768	25.8	7.3				
	FCL *D2*	1.9	0.384	24.3	7.3	6.97	189.96	13.95	
	CLA *D3*	3.6	0.768	27.4	7.1			(G)	
	D4								
22	FCL *D1A*	2.2	0.768	26.3	7.3				
	FCL *D1B*	2.0	0.768	25.8	7.3				
	FCL *D2*	1.9	0.384	24.3	7.3	6.97	189.96	13.95	
	CLA *D3*	3.6	0.768	27.4	7.1			(G)	
	D4								
23	FCL *D1A*	1.5	0.766	26.8	7.2				
	FCL *D1B*	1.6	0.766	26.0	7.4				
	FCL *D2*	1.1	0.383	26.5	7.2	5.11	133.29	10.22	
	CLA *D3*	2.1	0.766	27.9	7.1			(G)	
	D4								
24	FCL *D1A*	1.4	0.765	28.1	7.2				
	FCL *D1B*	1.4	0.765	29.1	7.2				
	FCL *D2*	0.7	0.382	28.6	7.1	5.34	117.05	10.68	
	CLA *D3*	3.8	0.765	29.6	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*	1.2	0.764	28.7	7.1				
	FCL *D1B*	1.2	0.764	28.9	7.2				
	FCL *D2*	1.5	0.382	28.0	7.2	158.58	627.81	313.91	
	CLA *D3*	472.0	0.764	28.2	6.8			(V)	
	D4								
26	FCL *D1A*	1.6	0.768	28.2	7.2				
	FCL *D1B*	1.7	0.768	27.8	7.2				
	FCL *D2*	1.6	0.384	28.1	7.2	7.97	196.80	15.95	
	CLA *D3*	4.5	0.768	27.4	7.1			(G)	
	D4								
27	FCL *D1A*	1.4	0.789	28.7	7.3				
	FCL *D1B*	1.5	0.789	28.3	7.3				
	FCL *D2*	1.6	0.394	28.0	7.1	7.74	190.52	15.47	
	CLA *D3*	4.3	0.789	28.3	7.2			(G)	
	D4								
28	FCL *D1A*	1.3	0.785	28.0	7.1				
	FCL *D1B*	1.2	0.785	28.0	7.2				
	FCL *D2*	1.2	0.392	27.0	7.2	5.75	138.15	11.49	
	CLA *D3*	3.2	0.785	27.0	7.1			(G)	
	D4								
29	FCL *D1A*	2.0	0.905	29.2	7.0				
	FCL *D1B*	0.4	0.905	29.3	7.1				
	FCL *D2*	0.6	0.452	25.5	7.1	2.81	51.00	5.61	
	CLA *D3*	3.3	0.905	29.4	7.2			(G)	
	D4								
30	FCL *D1A*	0.9	0.897	29.3	7.3				
	FCL *D1B*	1.0	0.897	29.3	7.3				
	FCL *D2*	1.1	0.448	27.1	7.3	4.82	112.53	9.63	
	CLA *D3*	3.9	0.897	29.4	7.1			(G)	
	D4								
31	*D1A*								
	D1B								
	D2								
	D3								
	D4								
	Max					158.58	627.81	313.91	
	Min					2.64	42.17	5.28	
	Avg					10.75	152.76	21.39	
	SD					27.49	101.49	54.40	

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

SUBMITTED BY: Tomas Sanchez Jr. **Certificate No. and Grade:** WS0012772, B **Date:** July 16, 2018

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: June

Year: 2018

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	6/6	100	3.80	2.63	30.8	25	1.23			1.23
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		100.00	3.80	2.63	30.79		1.23			1.23
Max		100.00	3.80	2.63	30.79		1.23			1.23
Min		100.00	3.80	2.63	30.79		1.23			1.23

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
100	3.80	2.63	30.8	NA	1.23

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: WS0012772, B

Date: July 16, 2018

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: June Year: 2018

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	0.374	0.587	93.00	16.61	1.00	16.61	0.000	0.50
	2	0.644	0.879	93.00	0.00	1.00	0.00	0.012	
	3	0.085	0.567	93.00	0.00	1.00	0.00	0.001	
	4								
	5								
2	1	0.443	1.116	94.10	0.00	1.00	0.00	0.002	0.25
	2	0.617	1.500	94.10	0.00	1.00	0.00	0.002	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.426	0.603	94.60	0.00	1.00	0.00	0.003	0.75
	2	0.590	0.834	94.60	0.00	1.00	0.00	0.014	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.453	0.592	90.40	0.00	1.00	0.00	0.012	0.75
	2	0.643	0.852	90.40	0.00	1.00	0.00	0.026	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.076	0.621	91.30	0.00	1.00	0.00	0.001	0.25
	2	0.671	0.894	91.30	0.00	1.00	0.00	0.011	
	3	0.364	0.564	91.30	47.87	1.00	47.87	0.000	
	4								
	5								
6	1	X	X	X	X	X	X	X	0.50
	2	0.615	0.870	94.10	0.00	1.00	0.00	0.005	
	3	0.404	0.583	94.10	0.00	1.00	0.00	0.003	
	4								
	5								
7	1	X	X	X	X	X	X	X	0.50
	2	0.611	0.841	93.80	0.00	1.00	0.00	0.003	
	3	0.431	0.596	93.80	0.00	1.00	0.00	0.003	
	4								
	5								
8	1	X	X	X	X	X	X	X	0.000
	2	0.621	0.933	81.70	10.62	1.00	10.62	0.000	
	3	0.407	0.601	81.70	40.26	1.00	40.26	0.000	
	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	X	X	X	X	X	X	X	1.00
	2	0.637	0.925	92.70	0.00	1.00	0.00	0.010	
	3	0.410	0.593	92.70	0.00	1.00	0.00	0.004	
	4								
	5								
10	1	X	X	X	X	X	X	X	0.50
	2	0.641	0.890	94.40	0.00	1.00	0.00	0.003	
	3	0.414	0.573	94.40	0.00	1.00	0.00	0.001	
	4								
	5								
11	1	X	X	X	X	X	X	X	0.50
	2	0.688	1.057	88.20	0.00	1.00	0.00	0.004	
	3	0.444	0.686	88.20	0.00	1.00	0.00	0.003	
	4								
	5								
12	1	X	X	X	X	X	X	X	0.25
	2	0.746	1.255	87.20	0.00	1.00	0.00	0.004	
	3	0.479	0.793	87.20	0.00	1.00	0.00	0.002	
	4								
	5								
13	1	X	X	X	X	X	X	X	0.25
	2	0.598	0.964	90.30	0.00	1.00	0.00	0.008	
	3	0.385	0.639	90.30	0.00	1.00	0.00	0.005	
	4								
	5								
14	1	X	X	X	X	X	X	X	0.000
	2	0.660	1.052	83.20	18.96	1.00	18.96	0.000	
	3	0.426	0.666	83.20	35.25	1.00	35.25	0.000	
	4								
	5								
15	1	X	X	X	X	X	X	X	0.000
	2	0.586	1.161	86.80	2.66	1.00	2.66	0.000	
	3	0.373	0.734	86.80	34.93	1.00	34.93	0.000	
	4								
	5								
16	1	X	X	X	X	X	X	X	0.000
	2	0.551	0.806	90.00	13.81	1.00	13.81	0.000	
	3	0.356	0.519	90.00	46.94	1.00	46.94	0.000	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B Date: July 16, 2018

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:** June **Year:** 2018

TRUE

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)
17	1	X	X	X	X	X	X	X	0.50
	2	0.628	0.836	90.50	0.00	1.00	0.00	0.003	
	3	0.407	0.536	90.50	0.00	1.00	0.00	0.001	
	4								
	5								
18	1	X	X	X	X	X	X	X	0.000
	2	0.607	0.825	92.10	29.00	1.00	29.00	0.000	
	3	0.393	0.535	92.10	45.63	1.00	45.63	0.000	
	4								
	5								
19	1	X	X	X	X	X	X	X	0.000
	2	0.592	0.823	91.90	19.29	1.00	19.29	0.000	
	3	0.393	0.531	91.90	47.87	1.00	47.87	0.000	
	4								
	5								
20	1	X	X	X	X	X	X	X	0.000
	2	0.467	0.824	91.60	16.38	1.00	16.38	0.000	
	3	0.301	0.548	91.60	48.74	1.00	48.74	0.000	
	4								
	5								
21	1	X	X	X	X	X	X	X	0.000
	2	0.486	0.844	91.60	28.54	1.00	28.54	0.000	
	3	0.314	0.540	91.60	47.40	1.00	47.40	0.000	
	4								
	5								
22	1	X	X	X	X	X	X	X	0.000
	2	0.479	0.826	91.00	28.45	1.00	28.45	0.000	
	3	0.310	0.527	91.00	47.85	1.00	47.85	0.000	
	4								
	5								
23	1	X	X	X	X	X	X	X	0.000
	2	0.485	0.776	77.60	29.61	1.00	29.61	0.000	
	3	0.314	0.513	77.60	52.78	1.00	52.78	0.000	
	4								
	5								
24	1	X	X	X	X	X	X	X	0.000
	2	0.532	0.924	92.50	13.27	1.00	13.27	0.000	
	3	0.349	0.597	92.50	49.60	1.00	49.60	0.000	
	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)
25	1	X	X	X	X	X	X	X	0.000
	2	0.689	0.777	91.90	18.05	1.00	18.05	0.000	
	3	0.453	0.512	91.90	49.20	1.00	49.20	0.000	
	4								
	5								
26	1	X	X	X	X	X	X	X	0.000
	2	0.638	0.874	90.70	25.64	1.00	25.64	0.000	
	3	0.420	0.579	90.70	44.04	1.00	44.04	0.000	
	4								
	5								
27	1	X	X	X	X	X	X	X	0.000
	2	0.599	1.204	92.10	22.90	1.00	22.90	0.000	
	3	0.387	0.769	92.10	37.11	1.00	37.11	0.000	
	4								
	5								
28	1	X	X	X	X	X	X	X	0.25
	2	0.584	0.860	91.10	0.00	1.00	0.00	0.007	
	3	0.376	0.559	91.10	0.00	1.00	0.00	0.004	
	4								
	5								
29	1	0.315	0.645	90.50	36.85	1.00	36.85	0.000	0.50
	2	0.559	0.924	90.50	0.00	1.00	0.00	0.003	
	3	0.121	0.571	90.50	0.00	1.00	0.00	0.001	
	4								
	5								
30	1	0.073	0.593	92.10	0.00	1.00	0.00	0.001	0.50
	2	0.594	0.856	92.10	0.00	1.00	0.00	0.002	
	3	0.319	0.540	92.10	50.19	1.00	50.19	0.000	
	4								
	5								
31	1								
	2								
	3								
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** July 16, 2018

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:** June **Year:** 2018

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm²)	Inactivation Credit Achieved Giardia Log	Virus Log	Crypto Log	Reactor Range	Date	Min Dose (mJ/cm²)	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	0.00*	1.00	0.00	1.00		12	0.00*	1.00	0.00	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	18.96	3.78	0.00	1.00
	7	0.00*	1.00	0.00	1.00		15	2.66	1.34	0.00	1.00
	8	10.62	2.94	0.00	1.00		16	13.81	3.35	0.00	1.00

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log	Reactor Range	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	18.05	3.72	0.00	1.00
	18	29.00	4.00	0.20	1.00		26	25.64	4.00	0.10	1.00
	19	19.29	3.81	0.00	1.00		27	22.90	4.00	0.01	1.00
	20	16.38	3.60	0.00	1.00		28	0.00*	1.00	0.00	1.00
	21	28.54	4.00	0.19	1.00		29	0.00*	1.00	0.00	1.00
	22	28.45	4.00	0.19	1.00		30	0.00*	1.00	0.00	1.00
	23	29.61	4.00	0.22	1.00		31				1.00
	24	13.27	3.28	0.00	1.00						

Total volume of water treated by all CDA reactors:	30.05	MG
Total volume of off-spec water produced by all CDA reactors:	0.16	MG
Percentage of off-spec water produced by all CDA reactors:	0.55	%
Crypto Log-Inactivation Credit for treatment by CDA reactors:	1.00	log

Treated water pumpage and total production by all UV reactors differ by more than 15% on these days: (June, 2018) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30.

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** July 16, 2018

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: June **Year:** 2018

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	38	64.90	98.40	0.66	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	6/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	44	38	62.66	69.70	0.90	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	6/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	38	106.00	97.80	1.08	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	6/1/18	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: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B

Date: July 16, 2018

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: June

Year: 2018

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: WS0012772, B

Date: July 16, 2018

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: June

Year: 2018

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	6/1/18	78713	92.70	100.00	7.30	YES	NA
	2	6/4/18	78713	94.40	92.60	1.80	NA	NA
	3	6/11/18	78713	93.30	87.90	5.40	YES	NA
	4	6/18/18	78713	92.30	91.40	0.90	NA	NA
	5	6/25/18	78713	93.50	91.90	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: 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: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B

Date: July 16, 2018

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: June Year: 2018

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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: June Year: 2018

	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	7.38					7.38	145.69					145.69
2	4.50					4.50	1.00					1.00	7.38					7.38	165.94					165.94
3	4.50					4.50	1.00					1.00	7.13					7.13	138.44					138.44
4	4.50					4.50	1.00					1.00	6.39					6.39	112.68					112.68
5	4.50					4.50	1.00					1.00	5.87					5.87	107.39					107.39
6	4.50					4.50	1.00					1.00	7.02					7.02	139.82					139.82
7	4.50					4.50	1.00					1.00	5.15					5.15	89.03					89.03
8	4.50					4.50	1.00					1.00	7.82					7.82	91.91					91.91
9	4.50					4.50	1.00					1.00	3.90					3.90	46.99					46.99
10	4.50					4.50	1.00					1.00	4.67					4.67	82.62					82.62
11	4.50					4.50	1.00					1.00	4.97					4.97	80.92					80.92
12	4.50					4.50	1.00					1.00	3.64					3.64	42.17					42.17
13	4.50					4.50	1.00					1.00	5.71					5.71	107.33					107.33
14	4.50					4.50	1.00					1.00	9.51					9.51	135.01					135.01
15	4.50					4.50	1.00					1.00	7.60					7.60	174.81					174.81
16	4.50					4.50	1.00					1.00	11.09					11.09	218.44					218.44
17	4.50					4.50	1.00					1.00	9.61					9.61	243.80					243.80
18	4.50					4.50	1.00					1.00	11.02					11.02	201.14					201.14
19	4.50					4.50	1.00					1.00	9.41					9.41	151.11					151.11
20	4.50					4.50	1.00					1.00	10.26					10.26	160.71					160.71
21	4.50					4.50	1.00					1.00	10.97					10.97	190.15					190.15
22	4.50					4.50	1.00					1.00	10.97					10.97	190.15					190.15
23	4.50					4.50	1.00					1.00	9.11					9.11	133.52					133.52
24	4.50					4.50	1.00					1.00	8.62					8.62	117.05					117.05
25	4.50					4.50	1.00					1.00	162.30					162.30	627.81					627.81
26	4.50					4.50	1.00					1.00	11.97					11.97	196.90					196.90
27	4.50					4.50	1.00					1.00	11.74					11.74	190.53					190.53
28	4.50					4.50	1.00					1.00	6.75					6.75	138.15					138.15
29	4.50					4.50	1.00					1.00	3.81					3.81	51.00					51.00
30	4.50					4.50	1.00					1.00	5.82					5.82	112.53					112.53
31																								
MIN	4.50					4.50	1.00					1.00	3.64					3.64	42.17					42.17
AVG	4.50					4.50	1.00					1.00	12.92					12.92	152.79					152.79
MAX	4.50					4.50	1.00					1.00	162.30					162.30	627.81					627.81