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.: 2040022

Plant ID No.: 20831

Report for the Month of: November 2017

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: December 10, 2017

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	97	Number of 4-hour periods when plant was off-line:	83
Number of readings above 0.10 NTU:	48	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: 4.0 (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:	6.03
		Average log inactivation) (including UV) for viruses:	74.58
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:	6.87
		Number of days with pH below 7.0 in the last disinfection zone:	13.00
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 30 required) (8)		
Average disinfectant residual value:	2.21	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:	33.30 NTU	Average turbidity value:	4.20 NTU
	Minimum turbidity reading:	1.05 NTU	Standard deviation:	5.245 NTU
	95th percentile value:	10.41 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.00 NTU	Average IFE turbidity value:	0.02 NTU
	Minimum IFEturbidity reading:	0.29 NTU	Standard deviation:	0.135 NTU
	95th percentile IFE value:	0.06 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.23 NTU	Average CFE turbidity value:	0.11 NTU
	Minimum CFE turbidity reading:	0.04 NTU	Standard deviation:	0.045 NTU
	95th percentile CFE value:	0.19 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.30 pH	Average pH value:	7.05 pH
	Minimum pH reading:	6.87 pH	Standard deviation:	0.126 pH
	95th percentile value:	7.25 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2040022 **Plant ID No.:** 20831 **Connections:** 1,937

Month: November **Year:** 2017 **Population:** 6,780

PERFORMANCE DATA

Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES NTU	RAW WATER ANALYSES Alk.	SETTLED WATER TURBIDITY (Mandatory 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	1.044	0.645	34	140	9.9	21.2					X	X	X	X	0.08	0.06	2.9	
2	0.716	0.638	40	180	20.0	33.3					0.08	X	X	X	0.07	0.05	2.8	
3	0.865	0.586	27	160	2.3	9.8					0.05	X	X	X	0.06	0.04	3.4	
4	0.789	0.626	29	140	2.6	8.3					0.04	X	X	X	0.09	0.08	2.5	
5	1.132	0.581	27	140	2.6	3.4					0.07	X	X	0.07	0.18	0.10	2.6	
6	1.226	0.717	28	140	2.9	2.7					0.12	0.09	X	0.10	0.10	0.09	3.6	
7	0.856	0.584	24	140	1.1	1.3					0.11	X	X	X	0.15	0.13	3.6	
8	0.847	0.526	30	140	1.2	1.7					X	X	X	0.20	0.16	0.15	2.7	
9	0.704	0.446	10	140	1.3	1.9					X	X	X	0.14	0.13	0.11	2.9	
10	0.861	0.563	10	140	1.6	3.6					X	X	X	0.13	0.13	0.13	2.6	
11	0.752	0.527	10	140	5.2	3.9					X	X	X	0.12	0.08	0.10	2.2	
12	0.749	0.540	11	140	1.1	1.9					X	X	X	X	0.09	0.06	2.4	
13	0.791	0.524	35	140	2.8	3.7					X	X	X	0.05	0.04	0.08	3.1	
14	0.772	0.506	37	140	1.6	1.4					X	X	X	0.23	0.18	0.09	3.1	
15	1.060	0.629	39	140	1.3	2.2					0.10	X	X	X	0.10	0.10	3.5	
16	0.877	0.557	48	180	1.3	1.6					0.09	X	X	0.11	0.09	0.09	2.3	
17	0.990	0.604	48	180	3.0	3.9					X	X	X	X	0.07	X	3.2	
18	0.870	0.532	97	180	2.4	2.6					0.07	X	X	0.08	0.05	0.05	3.4	
19	0.881	0.546	26	180	1.5	2.8					X	X	0.06	0.05	0.10	0.11	3.1	
20	0.833	0.597	10	180	3.9	2.2					X	X	X	0.15	0.12	0.15	3.2	
21	0.858	0.614	10	180	1.7	2.8					X	X	X	0.16	0.08	0.09	3.4	
22	0.877	0.544	10	180	2.6	6.5					0.13	X	X	0.12	0.11	0.13	2.8	
23	0.741	0.530	10	160	3.1	3.2					X	X	X	0.11	0.23	0.13	2.9	
24	0.804	0.604	10	140	4.9	3.3					X	X	X	0.14	0.07	0.07	3.0	
25	0.851	0.567	26	160	3.8	3.4					0.07	X	X	0.09	0.13	0.10	3.5	
26	0.853	0.594	28	140	2.2	2.4					X	X	X	0.15	0.12	0.11	3.4	
27	0.935	0.653	39	140	2.7	3.5					0.18	X	X	0.18	0.18	0.13	3.1	
28	0.898	0.614	30	140	3.5	4.2					0.19	X	X	0.19	0.18	0.18	3.2	
29	0.926	0.540	33	160	3.9	5.4					0.19	X	X	0.18	0.18	0.20	3.1	
30	0.948	0.586	44	160	2.7	3.8					X	X	X	0.11	0.10	0.10	3.2	
31																		
Total	26.306	17.320		Max	20.0	33.3												
Avg	0.877	0.577		Avg	3.4	5.1												
Max	1.226	0.717		95th %	7.8	16.1												
Min	0.704	0.446		Min	1.1	1.3												
				95th percentile based on data from all basins						10.4								

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:** December 10, 2017

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.: 2040022 Plant ID No.: 20831 Month: November Year: 2017

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		0.06		0.12		0.15													
2	0.08		0.03		0.08		0.10													
3	0.08		0.02		0.07		0.06													
4	0.17		0.03		0.08		0.23													
5	0.26		0.03		0.21		0.29													
6	0.19		0.10		0.15		0.17													
7	0.17		0.10		0.18		0.20													
8	0.20		0.10		0.23		0.25													
9	0.15		0.12		0.24		0.25													
10	0.13		0.09		0.18		0.18													
11	0.07		0.05		0.12		0.17													
12	0.10		0.04		0.09		0.15													
13	0.11		0.09		0.12		0.16													
14	0.12		0.09		0.17		0.19													
15	0.10		0.10		0.20		0.18													
16	0.11		0.10		0.18		0.22													
17	0.07		0.08		0.18		0.27													
18	0.19		0.19		0.23		0.24													
19	0.07		0.05		0.12		0.14													
20	0.19		0.05		0.12		0.15													
21	0.10		0.07		0.13		0.13													
22	0.08		0.06		0.15		0.17													
23	0.07		0.07		0.15		0.19													
24	0.06		0.04		0.13		0.15													
25	0.10		0.08		0.27		0.17													
26	0.09		0.07		0.20		0.17													
27	0.12		0.08		0.23		0.18													
28	0.08		0.22		0.18		0.20													
29	0.10		0.12		0.14		0.16													
30	0.08		0.07		0.22		0.19													
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: December 10, 2017

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.: 2040022 Plant ID No.: 20831 Month: November Year: 2017

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*	0.5	0.988	22.2	7.0				
	FCL *D1B*	0.6	0.988	22.8	7.0				
	FCL *D2*	0.6	0.494	21.7	7.1	2.17	35.59	4.34	
	CLA *D3*	3.9	0.988	23.1	7.0			(G)	
	D4								
2	FCL *D1A*	0.8	0.980	20.0	7.1				
	FCL *D1B*	0.7	0.980	20.3	7.1				
	FCL *D2*	0.8	0.490	19.5	7.2	2.15	42.16	4.31	
	CLA *D3*	3.7	0.980	20.2	7.1			(G)	
	D4								
3	FCL *D1A*	1.5	0.771	22.3	6.8				
	FCL *D1B*	1.3	0.771	22.7	6.8				
	FCL *D2*	1.3	0.385	21.1	7.0	5.11	104.33	10.22	
	CLA *D3*	4.3	0.771	23.3	6.9			(G)	
	D4								
4	FCL *D1A*	1.2	0.732	22.3	6.8				
	FCL *D1B*	1.1	0.732	23.3	6.8				
	FCL *D2*	1.3	0.366	22.2	6.9	5.51	109.02	11.03	
	CLA *D3*	4.4	0.732	24.1	7.0			(G)	
	D4								
5	FCL *D1A*	0.7	0.923	22.7	6.9				
	FCL *D1B*	0.9	0.923	23.5	6.9				
	FCL *D2*	0.6	0.461	21.8	6.8	2.86	42.44	5.71	
	CLA *D3*	5.0	0.923	23.4	6.9			(G)	
	D4								
6	FCL *D1A*	0.9	0.773	21.8	6.9				
	FCL *D1B*	0.8	0.773	22.2	7.0				
	FCL *D2*	0.9	0.386	21.3	7.0	3.87	72.85	7.74	
	CLA *D3*	4.6	0.773	22.1	6.9			(G)	
	D4								
7	FCL *D1A*	0.8	0.797	22.4	6.8				
	FCL *D1B*	0.8	0.797	23.1	6.7				
	FCL *D2*	1.2	0.398	22.5	6.9	4.59	88.56	9.17	
	CLA *D3*	4.1	0.797	23.7	6.9			(G)	
	D4								
8	FCL *D1A*	1.1	0.804	21.5	6.8				
	FCL *D1B*	1.3	0.804	21.7	6.8				
	FCL *D2*	0.4	0.402	21.6	7.0	2.59	48.12	5.18	
	CLA *D3*	3.3	0.804	19.1	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*	2.2	0.805	20.1	6.8				
	FCL *D1B*	2.0	0.805	20.0	6.7				
	FCL *D2*	1.0	0.402	20.9	7.1	4.02	91.42	8.04	
	CLA *D3*	2.9	0.805	20.1	6.9			(G)	
	D4								
10	FCL *D1A*	1.8	0.798	19.7	6.9				
	FCL *D1B*	2.1	0.798	19.6	6.8				
	FCL *D2*	1.8	0.399	20.1	7.0	4.94	122.01	9.88	
	CLA *D3*	2.8	0.798	19.6	7.0			(G)	
	D4								
11	FCL *D1A*	1.0	0.778	19.3	6.8				
	FCL *D1B*	2.0	0.778	19.1	7.2				
	FCL *D2*	0.3	0.389	19.8	7.0	2.06	36.03	4.12	
	CLA *D3*	3.1	0.778	19.0	7.1			(G)	
	D4								
12	FCL *D1A*	1.8	0.731	20.9	6.9				
	FCL *D1B*	2.0	0.731	20.7	6.9				
	FCL *D2*	1.7	0.365	21.0	6.9	6.03	140.04	12.07	
	CLA *D3*	3.8	0.731	20.9	7.1			(G)	
	D4								
13	FCL *D1A*	1.1	0.757	20.7	6.9				
	FCL *D1B*	1.7	0.757	20.4	7.0				
	FCL *D2*	0.3	0.378	21.2	6.9	2.37	41.56	4.75	
	CLA *D3*	3.2	0.757	20.8	7.1			(G)	
	D4								
14	FCL *D1A*	1.6	0.781	21.1	6.9				
	FCL *D1B*	1.7	0.781	21.3	6.8				
	FCL *D2*	0.8	0.390	20.8	6.9	3.78	73.47	7.57	
	CLA *D3*	4.0	0.781	21.4	7.0			(G)	
	D4								
15	FCL *D1A*	0.8	0.782	21.2	6.9				
	FCL *D1B*	0.7	0.782	21.8	6.7				
	FCL *D2*	1.0	0.391	21.8	6.8	4.05	76.58	8.11	
	CLA *D3*	4.1	0.782	21.5	6.9			(G)	
	D4								
16	FCL *D1A*	0.9	0.810	21.1	6.8				
	FCL *D1B*	0.7	0.810	21.3	6.8				
	FCL *D2*	1.2	0.405	20.5	6.9	3.80	76.25	7.61	
	CLA *D3*	4.0	0.810	20.9	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: Tomas Sanchez Jr. Certificate No. and Grade: WS0012772, B Date: December 10, 2017

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.: 2040022 Plant ID No.: 20831 Month: November Year: 2017

DISINFECTION PROCESS PARAMETERS

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

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
17	FCL *D1A*	0.9	0.810	20.1	6.8				
	FCL *D1B*	0.9	0.810	20.1	6.8				
	FCL *D2*	1.3	0.405	19.6	7.0	3.84	79.67	7.68	
	CLA *D3*	4.0	0.810	20.0	7.0			(G)	
	D4								
18	FCL *D1A*	0.7	0.847	21.8	7.0				
	FCL *D1B*	0.9	0.847	21.9	7.0				
	FCL *D2*	1.2	0.423	21.1	7.2	3.58	74.73	7.17	
	CLA *D3*	4.1	0.847	22.1	7.0			(G)	
	D4								
19	FCL *D1A*	1.1	0.844	20.5	7.2				
	FCL *D1B*	1.2	0.844	20.5	7.1				
	FCL *D2*	1.3	0.422	20.7	7.1	3.61	82.79	7.23	
	CLA *D3*	3.1	0.844	22.0	7.1			(G)	
	D4								
20	FCL *D1A*	1.1	0.812	20.4	7.2				
	FCL *D1B*	1.0	0.812	19.9	7.1				
	FCL *D2*	1.4	0.406	19.7	7.1	3.81	85.25	7.62	
	CLA *D3*	3.9	0.812	19.3	7.2			(G)	
	D4								
21	FCL *D1A*	0.9	0.781	19.9	7.1				
	FCL *D1B*	0.8	0.781	19.9	7.1				
	FCL *D2*	1.3	0.390	19.3	6.8	3.93	77.84	7.86	
	CLA *D3*	4.0	0.781	20.8	7.2			(G)	
	D4								
22	FCL *D1A*	1.0	0.784	19.2	7.3				
	FCL *D1B*	1.0	0.784	19.1	7.3				
	FCL *D2*	0.5	0.392	20.3	7.3	2.29	43.09	4.59	
	CLA *D3*	3.8	0.784	20.3	6.9			(G)	
	D4								
23	FCL *D1A*	1.1	0.744	18.9	7.5				
	FCL *D1B*	0.9	0.744	18.4	7.5				
	FCL *D2*	1.2	0.372	19.3	7.5	3.18	74.86	6.35	
	CLA *D3*	3.8	0.744	19.9	7.1			(G)	
	D4								
24	FCL *D1A*	1.3	0.722	19.1	7.3				
	FCL *D1B*	1.5	0.722	18.6	7.3				
	FCL *D2*	0.4	0.361	19.3	7.3	2.51	49.38	5.02	
	CLA *D3*	3.8	0.722	19.3	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=
25	FCL *D1A*	1.1	0.750	20.0	7.4				
	FCL *D1B*	1.2	0.750	19.7	7.4				
	FCL *D2*	0.8	0.375	20.0	7.3	3.12	64.35	6.23	
	CLA *D3*	4.1	0.750	21.5	7.2			(G)	
	D4								
26	FCL *D1A*	1.3	0.748	21.2	7.3				
	FCL *D1B*	1.3	0.748	20.6	7.4				
	FCL *D2*	1.0	0.374	20.6	7.4	3.70	84.74	7.40	
	CLA *D3*	3.9	0.748	21.6	7.2			(G)	
	D4								
27	FCL *D1A*	0.7	0.788	20.9	7.4				
	FCL *D1B*	0.8	0.788	20.7	7.4				
	FCL *D2*	1.2	0.394	20.7	7.4	3.45	76.82	6.90	
	CLA *D3*	4.0	0.788	21.8	7.2			(G)	
	D4								
28	FCL *D1A*	0.5	0.798	21.6	7.4				
	FCL *D1B*	0.4	0.798	21.2	7.5				
	FCL *D2*	1.1	0.399	20.9	7.3	3.03	65.02	6.06	
	CLA *D3*	3.6	0.798	22.1	7.3			(G)	
	D4								
29	FCL *D1A*	1.3	0.820	21.0	7.3				
	FCL *D1B*	1.8	0.820	21.0	7.4				
	FCL *D2*	0.7	0.410	21.0	7.3	2.94	62.40	5.87	
	CLA *D3*	3.8	0.820	21.0	7.3			(G)	
	D4								
30	FCL *D1A*	1.7	0.776	20.0	7.4				
	FCL *D1B*	1.3	0.776	20.0	7.5				
	FCL *D2*	1.7	0.388	20.0	7.4	4.20	112.00	8.39	
	CLA *D3*	3.7	0.776	20.0	7.2			(G)	
	D4								
31	*D1A*								
	D1B								
	D2								
	D3								
	D4								
					Max	6.03	140.04	12.07	
					Min	2.06	35.59	4.12	
					Avg	3.57	74.45	7.14	
					SD	0.99	25.61	1.98	

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: December 10, 2017

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.: 2040022

Plant ID No.: 20831

Month: November

Year: 2017

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	11/1	140	2.93	2.37	19.1	15	1.27			1.27
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	2.93	2.37	19.11		1.27			1.27
Max		140.00	2.93	2.37	19.11		1.27			1.27
Min		140.00	2.93	2.37	19.11		1.27			1.27

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	2.93	2.37	19.1	NA	1.27

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: December 10, 2017

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.: 2040022 **Plant ID No.:** 20831 **Month:** November **Year:** 2017

VALIDATED OPERATIONAL CONDITIONS

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

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
1	1	X	X	X	X	X	X	X	0.000
	2	0.490	1.339	97.40	27.47	1.00	27.47	0.000	
	3	0.313	0.858	97.40	35.36	1.00	35.36	0.000	
	4								
	5								
2	1	X	X	X	X	X	X	X	0.000
	2	0.531	1.171	98.00	30.74	1.00	30.74	0.000	
	3	0.341	0.755	98.00	30.40	1.00	30.40	0.000	
	4								
	5								
3	1	X	X	X	X	X	X	X	0.25
	2	0.467	1.023	98.60	0.00	1.00	0.00	0.003	
	3	0.302	0.655	98.60	0.00	1.00	0.00	0.002	
	4								
	5								
4	1	X	X	X	X	X	X	X	0.000
	2	0.386	0.977	98.70	23.91	1.00	23.91	0.000	
	3	0.251	0.630	98.70	24.77	1.00	24.77	0.000	
	4								
	5								
5	1	0.146	0.605	97.80	17.63	1.00	17.63	0.000	0.000
	2	0.363	0.912	97.80	38.72	1.00	38.72	0.000	
	3	0.171	0.558	97.80	66.78	1.00	66.78	0.000	
	4								
	5								
6	1	0.110	0.600	99.10	13.21	1.00	13.21	0.000	0.000
	2	0.634	0.947	99.10	7.27	1.00	7.27	0.000	
	3	0.361	0.618	99.10	18.59	1.00	18.59	0.000	
	4								
	5								
7	1	X	X	X	X	X	X	X	0.000
	2	0.463	0.997	98.50	36.44	1.00	36.44	0.000	
	3	0.298	0.663	98.50	57.70	1.00	57.70	0.000	
	4								
	5								
8	1	X	X	X	X	X	X	X	0.25
	2	0.495	0.970	100.00	0.00	1.00	0.00	0.011	
	3	0.315	0.625	100.00	60.60	1.00	60.60	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)
9	1	X	X	X	X	X	X	X	0.000
	2	0.403	1.033	100.00	23.72	1.00	23.72	0.000	
	3	0.255	0.628	100.00	60.42	1.00	60.42	0.000	
	4								
	5								
10	1	X	X	X	X	X	X	X	0.000
	2	0.474	0.984	98.40	24.91	1.00	24.91	0.000	
	3	0.307	0.657	98.40	13.23	1.00	13.23	0.000	
	4								
	5								
11	1	X	X	X	X	X	X	X	0.000
	2	0.421	0.937	100.00	39.54	1.00	39.54	0.000	
	3	0.274	0.627	100.00	62.56	1.00	62.56	0.000	
	4								
	5								
12	1	X	X	X	X	X	X	X	0.000
	2	0.407	0.937	82.70	23.85	1.00	23.85	0.000	
	3	0.266	0.626	82.70	38.45	1.00	38.45	0.000	
	4								
	5								
13	1	X	X	X	X	X	X	X	0.000
	2	0.420	0.990	100.00	37.90	1.00	37.90	0.000	
	3	0.275	0.633	100.00	60.55	1.00	60.55	0.000	
	4								
	5								
14	1	X	X	X	X	X	X	X	0.000
	2	0.415	0.955	100.00	39.07	1.00	39.07	0.000	
	3	0.271	0.614	100.00	63.01	1.00	63.01	0.000	
	4								
	5								
15	1	X	X	X	X	X	X	X	0.25
	2	0.521	0.969	100.00	0.00	1.00	0.00	0.001	
	3	0.335	0.637	100.00	3.95	1.00	3.95	0.000	
	4								
	5								
16	1	X	X	X	X	X	X	X	0.50
	2	0.469	0.975	100.00	0.00	1.00	0.00	0.005	
	3	0.301	0.634	100.00	0.00	1.00	0.00	0.001	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B **Date:** December 10, 2017

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.: 2040022 **Plant ID No.:** 20831 **Month:** November **Year:** 2017

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	0.25
	2	0.409	1.147	100.00	0.00	1.00	0.00	0.005	
	3	0.264	0.748	100.00	0.00	1.00	0.00	0.003	
	4								
	5								
18	1	X	X	X	X	X	X	X	0.50
	2	0.504	1.034	100.00	0.00	1.00	0.00	0.007	
	3	0.330	0.684	100.00	0.00	1.00	0.00	0.004	
	4								
	5								
19	1	X	X	X	X	X	X	X	0.25
	2	0.452	1.010	100.00	0.00	1.00	0.00	0.001	
	3	0.307	0.668	100.00	0.00	1.00	0.00	0.002	
	4								
	5								
20	1	X	X	X	X	X	X	X	0.25
	2	0.446	0.990	100.00	0.00	1.00	0.00	0.008	
	3	0.294	0.661	100.00	0.00	1.00	0.00	0.006	
	4								
	5								
21	1	X	X	X	X	X	X	X	0.50
	2	0.423	1.500	100.00	0.00	1.00	0.00	0.028	
	3	0.274	0.967	100.00	0.00	1.00	0.00	0.018	
	4								
	5								
22	1	X	X	X	X	X	X	X	0.000
	2	0.500	0.926	99.70	4.99	1.00	4.99	0.000	
	3	0.328	0.612	99.70	17.06	1.00	17.06	0.000	
	4								
	5								
23	1	X	X	X	X	X	X	X	0.50
	2	0.414	0.919	96.90	0.00	1.00	0.00	0.003	
	3	0.270	0.610	96.90	60.74	1.00	60.74	0.000	
	4								
	5								
24	1	X	X	X	X	X	X	X	0.000
	2	0.340	0.846	98.30	41.63	1.00	41.63	0.000	
	3	0.220	0.568	98.30	63.92	1.00	63.92	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	0.486	1.005	99.10	36.04	1.00	36.04	0.000	
	3	0.315	0.626	99.10	58.75	1.00	58.75	0.000	
	4								
	5								
26	1	X	X	X	X	X	X	X	0.000
	2	0.421	0.918	97.60	39.31	1.00	39.31	0.000	
	3	0.277	0.607	97.60	40.62	1.00	40.62	0.000	
	4								
	5								
27	1	X	X	X	X	X	X	X	
	2	0.501	1.145	96.80	2.61	1.00	2.61	0.000	
	3	0.326	0.711	96.80	53.26	1.00	53.26	0.000	
	4								
	5								
28	1	X	X	X	X	X	X	X	0.25
	2	0.467	1.375	97.10	0.00	1.00	0.00	0.001	
	3	0.302	0.873	97.10	43.69	1.00	43.69	0.000	
	4								
	5								
29	1	X	X	X	X	X	X	X	0.75
	2	0.482	1.500	98.40	0.00	1.00	0.00	0.004	
	3	0.311	1.060	98.40	34.58	1.00	34.58	0.000	
	4								
	5								
30	1	X	X	X	X	X	X	X	0.75
	2	0.417	1.178	96.50	0.00	1.00	0.00	0.026	
	3	0.273	0.740	96.50	0.00	1.00	0.00	0.009	
	4								
	5								
31	1								
	2								
	3								
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** December 10, 2017

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.: 2040022 **Plant ID No.:** 20831 **Month:** November **Year:** 2017

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	27.47	4.00	0.16	1.00	1 to 3	9	23.72	4.00	0.04	1.00
	2	30.40	4.00	0.25	1.00		10	13.23	3.28	0.00	1.00
	3	0.00*	1.00	0.00	1.00		11	39.54	4.00	0.51	1.00
	4	23.91	4.00	0.00	1.00		12	23.85	4.00	0.04	1.00
	5	17.63	3.69	0.00	1.00		13	37.90	4.00	0.47	1.00
	6	7.27	2.41	0.00	1.00		14	39.07	4.00	0.50	1.00
	7	36.44	4.00	0.43	1.00		15	0.00	1.00	0.00	1.00
	8	0.00	1.00	0.00	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	36.04	4.00	0.41	1.00
	18	0.00*	1.00	0.00	1.00		26	39.31	4.00	0.51	1.00
	19	0.00*	1.00	0.00	1.00		27	2.61	1.31	0.00	1.00
	20	0.00*	1.00	0.00	1.00		28	0.00	1.00	0.00	1.00
	21	0.00*	1.00	0.00	1.00		29	0.00	1.00	0.00	1.00
	22	4.99	1.97	0.00	1.00		30	0.00*	1.00	0.00	1.00
	23	0.00	1.00	0.00	1.00		31				1.00
	24	41.63	4.00	0.57	1.00						

Total volume of water treated by all CDA reactors:	22.60	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:	0.65	%
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: 1, 2, 4, 5, 15, 17, 21, 24, 26, 30,

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** December 10, 2017

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.: 2040022 **Plant ID No.:** 20831

Month: November **Year:** 2017

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	104.30	104.20	1.00	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	11/1/17	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	44	38	73.70	79.30	0.93	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	11/1/17	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	38	81.50	77.90	1.05	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	11/1/17	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: December 10, 2017

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.: 2040022

Plant ID No.: 20831

Month: November

Year: 2017

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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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 Brave

PWS ID No.: 2040022

Plant ID 20831

Month: November

Year: 2017

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: P0108455

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	11/1/17	AF45WD	99.70	99.80	0.10	NA	NA
	2	11/6/17	AF45WD	100.00	98.00	2.00	NA	NA
	3	11/13/17	AF45WD	100.00	98.90	1.10	NA	NA
	4	11/20/17	AF45WD	100.00	98.40	1.60	NA	NA
	5	11/27/17	AF45WD	100.00	98.70	1.30	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: P0108455

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.

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Date: December 10, 2017