

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

COPY

PUBLIC WATER

SYSTEM NAME: Webb County Water Utility

PLANT NAME

OR NUMBER: Rio Bravo

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.

PWS ID No.: 2400022

Plant ID No.: 20831

Operator's Signature: _____

Report for

the Month of: November 2015

Certificate No. & Grade: WS0009456, C

Date: December 10, 2015

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings: <u>120</u>	Number of 4-hour periods when plant was off-line: <u>60</u>
Number of readings above 0.10 NTU: <u>63</u>	Number of 4-hour periods when plant was on-line but turbidity data was not collected: <u>0</u>
Number of readings above 0.3 NTU: <u>0</u>	Number of days when plant was on-line but individual filter turbidity data was not collected: <u>0</u>
Number of readings above 0.5 NTU: <u>0</u>	Number of days with readings above 1.0 NTU: <u>0</u> (2)
Number of readings above 1.0 NTU: <u>0</u>	Number of days with readings above 5.0 NTU: <u>0</u> (3)
Maximum allowable turbidity level: <u>0.3</u>	
Percentage of readings above this limit: <u>0.0</u> % (1)	

Statistical Summary	Maximum turbidity reading: <u>0.25</u> NTU	Average turbidity value: <u>0.11</u> NTU	
	Minimum turbidity reading: <u>0.01</u> NTU	Standard deviation: <u>0.037</u> NTU	
	CFE 95 th percentile value: <u>0.16</u> NTU	IFE 95 th percentile: <u>0.250</u> NTU	

Bin Class: <u>2</u>	Crypto Credit Required: <u>4.0</u> (7A)	Crypto Credit Achieved: <u>0.0</u> (7B)	Bin 3&4 Credits: <u>0.0</u> (7C)
Watershed Protection: <u>0.0</u>	Conventional Treatment: <u>3.0</u>	Second Stage Filtration: <u>0.0</u>	
Bank Filtration: <u>0.0</u>	Enhanced Filter Performance: <u>0.0</u>	UV: <u>0.0</u>	
Presedimentation with Coagulation: <u>0.0</u>	Bag and Cartridge Filtration: <u>0.0</u>	Ozone, Chlorine Dioxide: <u>0.0</u>	
Two-Stage Lime Softening: <u>0.0</u>	Membrane Filtration: <u>0.0</u>	Perform. Demonstration: <u>0.0</u>	

Number of days with a low CT for no more than 4.0 consecutive hours: <u>0</u>	Average log inactivation for Giardia: <u>2.39</u>
Number of days with a low CT for more than 4.0 consecutive hours: <u>0</u> (4)	Average log inactivation for viruses: <u>59.58</u>
	Number of days when profiling data was not collected: <u>0</u>
	Number of days when CT data was not collected: <u>0</u>

Minimum disinfectant residual required leaving the plant: <u>0.5</u> mg/L, measured as Total Chlorine	
Number of days with a low residual for no more than 4.0 consecutive hours: <u>0</u>	
Number of days with a low residual for more than 4.0 consecutive hours: <u>0</u> (5)	Number of days when disinfectant residual leaving the plant was not properly monitored: <u>2</u>

DISTRIBUTION SYSTEM

Minimum disinfectant residual required in distribution system: <u>0.5</u> mg/L, measured as Total Chlorine	
Total number of readings this month: <u>38</u> (at least 30 required) (8)	
Average disinfectant residual value: <u>1.58</u>	Percentage of readings with a low residual this month: <u>0.0</u> % (6A)
Number of readings with a low residual: <u>0</u>	
Number of readings with no detectable residual: <u>0</u>	Percentage of readings with a low residual last month: <u>0.0</u> % (6B)

ADDITIONAL REPORTS & WORKSHEETS

The Page 1 Addendum (Public Notices) is required because there was at least one treatment technique or monitoring/reporting violation 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.				

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.)
 Summary Page Addendum (Violations and Public Notices)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: November

Year: 2015

PUBLIC NOTICES						
VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ <input checked="" type="checkbox"/>	NOTICE TO CUSTOMER *		VIOLATION DATES
			DATE OF NOTICE	DATE OF NOTICE	PENDING	
TREATMENT TECHNIQUE	Were more than 5.0% of the turbidity readings above the acceptable level? - see (1) on the Summary Page	No				
	Were there any days with turbidity readings above 1.0 NTU? - see (2) on the Summary Page	No				
	Were there any days with turbidity readings above 5.0 NTU? - see (3) on the Summary Page	No				
	Were there any periods when the plant failed to meet the CT requirements for more than 4.0 consecutive hours? - see (4) on the Summary Page	No				
	Were there any periods when the residuals leaving the plant fell below the acceptable level for more than 4.0 consecutive hours? - see (5) on the Summary Page	No				
	Were more than 5.0% of the residuals in the distribution system below the acceptable level for two months in a row? - see (6A) and (6B) on the Summary Page	No				
	Was Cryptosporidium removal credit less than required based on Bin Classification? - see (7A), (7B), and (7C) on the Summary Page	Yes				1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30
MONITORING & REPORTING	Were there any days when the plant failed to report all of the required Combined Filter Effluent (CFE) turbidity readings? - see the Turbidity Data Page	No				
	Were there any days when the plant failed to report all the CT data needed to evaluate the level of microbial inactivation achieved? - see the Disinfection Data Page	No				
	Were there any days when the plant failed to report the minimum disinfectant residual entering the distribution system? - see the Turbidity Data Page	Yes				29, 30,
	Did the system fail to collect enough samples in the distribution system to meet the minimum disinfectant monitoring requirements? - see (8) on the Summary Page	No				
	Were there any days when the plant failed to report the maximum Individual filter effluent (IFE) turbidity level produced by each filter? - see the Filter Data Page	No				
	Were there any days when the plant failed to report the IFE turbidity level 4-hours after beginning a filter run? - see the Filter Data Page	Not Applicable				
	Did the plant fail to submit a Filter Profile Report if one was required? - see (9) on the Summary page	No				
	Did the plant fail to submit a Filter Assessment Report if one was required? - see (10) on the Summary Page	No				
	Did the plant fail to submit a Comprehensive Performance Evaluation Request if one was required? - see (11) on the Summary Page	No				
Did the plant fail to collect at least one Total Organic Carbon sample set? - see TOCMOR Page	No					

Treatment technique violation notices are due no later than the end of the next business day. Please include a copy if possible.
 * Copies of each Public Notice must accompany this report if they have already been issued.

SUBMITTED BY: TOMAS SANCHEZ JR.

Certificate No. and Grade: WS0009466, C

Date: December 10, 2016

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.)
 Summary Page Addendum (Violations and Public Notices)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: November

Year: 2015

PUBLIC NOTICES						
VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ		NOTICE TO CUSTOMER *	
			DATE OF NOTICE		DATE OF NOTICE	PENDING
MONITORING & REPORTING FOR ALTERNATIVE TECHNOLOGIES	Were there any days when the plant failed to report all of the data required to evaluate its watershed protection program?	Not Applicable				
	Were there any days when the plant failed to report all of the data required to evaluate its bank filters? - see the Prefilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its presedimentation basin? - see the Prefilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its two stage softening process? - see the Prefilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its bag or cartridge filters? - see the Bag, Cartridge worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its 2nd stage filters? - see the 2ndStageFilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its membrane filters? - see the membrane worksheets	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its UV reactors? - see the UV-ISA and UV-CDA worksheets	Not Applicable				
	Did the plant fail to report the data needed to evaluate its UV sensors or UV Transmittance analyzers? - see the UV-Sensors and UVT worksheets	Not Applicable				
	Were there any days when the plant failed to report all the CT data needed to evaluate the level of <i>Crptosporidium</i> inactivation achieved? - see the Crypto CT worksheet	Not Applicable				
Were there any days when the plant failed to report all of the data required by the Demonstration of Performance approval letter issued by the TCEQ?	Not Applicable					

Treatment technique violation notices are due no later than the end of the next business day. Please include a copy if possible.
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SUMMITTED BY: Thomas Sanchez Jr.

Certificate No. and Grade: WS0009456, C

Date: December 10, 2015

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: <u>Webb County Water Utility</u>	PLANT NAME OR NUMBER: <u>Rio Bravo</u>
PWS ID No.: <u>2400022</u> Plant ID No.: <u>20831</u>	Connections: <u>1,903</u>
Month: <u>November</u> Year: <u>2015</u>	Population: <u>6,660</u>

PERFORMANCE DATA																			
Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES		SETTLED WATER TURBIDITY (Optional Data)						FINISHED WATER QUALITY								
			NTU	AIK.	Basin No.						Combined Filter Effluent Turbidity						Lowest Residual	Time	
					1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6			
1	1.288	0.785	10	140	1.2	1.1						0.11	0.15	X	0.07	0.08	0.09	0.9	
2	1.148	0.793	10	140	1.7	2.8						0.08	X	0.09	0.11	0.09	0.09	1.4	
3	1.092	0.800	8	120	2.7	2.5						0.09	X	X	0.09	0.09	0.09	1.5	
4	1.316	0.891	6	120	0.8	1.5						0.09	X	X	0.09	0.09	0.09	1.1	
5	1.243	0.802	5	120	0.9	2.4						0.09	0.09	X	X	0.14	0.25	2.5	
6	1.064	0.730	7	120	0.7	0.9						X	X	X	0.09	0.07	0.05	1.7	
7	0.959	0.624	8	120	0.9	1.2						0.03	X	X	0.05	0.04	X	2.8	
8	0.928	0.661	7	120	1.0	0.6						0.04	X	X	0.03	0.03	0.04	0.9	
9	1.180	0.713	5	120	1.2	1.3						0.09	X	X	0.08	0.09	0.09	0.9	
10	1.209	0.690	12	140	1.4	2.2						0.10	X	X	0.11	0.10	0.12	2.3	
11	1.054	0.679	6	140	1.0	0.9						0.11	X	X	0.10	0.12	0.14	2.3	
12	1.205	0.785	13	140	1.1	1.0						0.11	X	X	0.01	0.10	0.11	2.4	
13	1.124	0.730	11	140	1.3	0.9						0.10	X	X	0.06	0.11	0.10	2.2	
14	1.020	0.681	14	140	1.1	0.9						X	X	X	0.11	0.09	0.09	1.2	
15	1.110	0.772	6	140	1.6	1.1						0.09	X	X	0.10	0.11	0.11	1.8	
16	0.862	0.601	6	140	0.8	1.1						X	X	X	0.14	X	X	1.7	
17	1.135	0.820	7	140	1.2	1.5						X	X	0.12	0.11	0.12	0.11	1.6	
18	1.091	0.762	8	140	2.0	1.3						0.11	X	X	0.11	0.18	0.14	2.0	
19	1.025	0.809	12	140	1.6	0.7						0.15	X	0.15	0.12	0.11	0.10	2.0	
20	1.270	0.746	7	120	1.0	0.6						0.11	0.10	0.11	0.11	0.12	0.14	0.9	
21	0.921	0.721	6	120	1.8	1.1						0.15	X	0.17	0.13	0.08	X	1.0	
22	1.171	0.731	10	120	2.8	1.7						0.10	0.16	0.15	0.15	0.15	0.16	1.2	
23	0.900	0.653	8	140	1.2	1.6						0.19	X	X	0.21	0.09	0.09	1.1	
24	1.231	0.745	51	140	2.7	0.9						0.06	0.03	X	0.11	0.11	0.12	1.4	
25	1.139	0.776	7	140	1.8	0.3						0.12	X	X	0.16	0.18	0.16	0.9	
26	1.065	0.768	8	140	0.9	0.2						0.14	X	X	X	0.13	0.14	1.1	
27	1.186	0.636	8	140	0.9	1.1						0.13	X	X	0.15	0.06	X	1.3	
28	1.028	0.614	10	160	0.9	0.6						X	X	0.08	0.10	0.10	0.10	1.1	
29	1.078	0.597	15	140	2.5	2.1						0.10	X	X	0.12	0.12	0.11	MD	
30	0.818	0.672	9	140	3.8	1.1						0.13	X	X	0.13	0.15	0.14	MD	
31																			
Total	32.860	21.787																	
Avg	1.095	0.726																	
Max	1.316	0.891																	
Min	0.818	0.597																	

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: Thomas Sanchez Jr. Certificate No. WS0009456, C Date: December 10, 2015

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: November Year: 2015

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																	
1	0.11		0.15		0.11		0.16														
2	0.24		0.17		0.11		0.16														
3	0.16		0.15		0.10		0.12														
4	0.19		0.18		0.13		0.24														
5	0.14		0.18		0.14		0.17														
6	0.24		0.17		0.14		0.17														
7	0.15		0.11		0.14		0.18														
8	0.15		0.14		0.19		0.17														
9	0.14		0.13		0.17		0.16														
10	0.14		0.11		0.11		0.16														
11	0.10		0.14		0.12		0.15														
12	0.12		0.17		0.14		0.21														
13	0.12		0.13		0.14		0.19														
14	0.11		0.10		0.13		0.23														
15	0.11		0.13		0.14		0.15														
16	0.25		0.11		0.13		0.13														
17	0.24		0.13		0.26		0.17														
18	0.50		0.21		0.21		0.21														
19	0.18		0.22		0.21		0.17														
20	0.18		0.22		0.18		0.18														
21	0.18		0.21		0.19		0.17														
22	0.20		0.19		0.20		0.24														
23	0.16		0.19		0.20		0.16														
24	0.16		0.14		0.15		0.20														
25	0.27		0.18		0.19		0.21														
26	0.28		0.23		0.25		0.27														
27	0.18		0.15		0.16		0.20														
28	0.17		0.11		0.10		0.14														
29	0.11		0.30		0.20		0.16														
30	0.12		0.10		0.12		0.12														
31																					

SUMMARY & COMPLIANCE ACTIONS	Criteria	Filter No.										Plant	
		1	2	3	4	5	6	7	8	9	10		
	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: Tomás Sanchez Jr

Certificate No. and Grade: WS0009456, C Date: December 10, 2015

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: November Year: 2015

DISINFECTION PROCESS PARAMETERS							
APPROVED CT STUDY PARAMETERS					PERFORMANCE STANDARDS		
Parameters	Disinfection Zones				Log Inactivations		
	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 ₁₀
1	FCL D1A	0.7	0.899	23.2	7.1				
	FCL D1B	0.7	0.899	23.3	7.1				
	FCL D2	1.2	0.449	22.8	7.2	3.06	78.27	6.11	
	CLA D3	2.3	1.798	23.6	7.2				
	D4								
2	FCL D1A	0.7	0.874	22.7	6.9				
	FCL D1B	0.8	0.874	23.1	6.9				
	FCL D2	0.6	0.437	23.0	7.2	1.90	48.25	3.80	
	CLA D3	1.8	24.400	24.4	6.9				
	D4								
3	FCL D1A	0.4	0.835	22.3	6.9				
	FCL D1B	0.6	0.835	22.7	7.0				
	FCL D2	1.1	0.417	24.4	7.0	3.32	78.62	6.64	
	CLA D3	2.1	1.670	25.0	6.9				
	D4								
4	FCL D1A	0.3	0.853	22.3	6.9				
	FCL D1B	0.5	0.853	22.8	7.0				
	FCL D2	0.6	0.426	22.2	6.9	2.00	41.14	4.00	
	CLA D3	2.5	1.707	22.8	6.9				
	D4								
5	FCL D1A	0.4	0.851	24.6	6.9				
	FCL D1B	0.3	0.851	24.9	7.0				
	FCL D2	1.5	0.425	24.4	7.0	4.04	98.83	8.09	
	CLA D3	2.8	1.703	25.6	6.9				
	D4								
6	FCL D1A	0.7	0.866	24.0	7.0				
	FCL D1B	0.7	0.866	24.2	6.9				
	FCL D2	1.0	0.433	24.2	7.0	3.27	75.42	6.55	
	CLA D3	2.4	1.733	24.5	7.0				
	D4								
7	FCL D1A	0.8	0.888	21.9	7.1				
	FCL D1B	0.7	0.888	21.8	6.9				
	FCL D2	1.5	0.444	23.4	7.1	3.78	94.59	7.56	
	CLA D3	3.4	1.776	22.3	7.0				
	D4								
8	FCL D1A	0.9	0.897	20.6	7.1				
	FCL D1B	0.8	0.897	20.2	7.0				
	FCL D2	1.1	0.448	21.7	7.0	2.81	68.53	5.62	
	CLA D3	2.7	1.795	21.4	7.1				
	D4								

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time ₁₀
9	FCL D1A	0.9	0.818	20.3	7.2				
	FCL D1B	0.5	0.818	20.5	7.1				
	FCL D2	1.5	0.409	21.3	7.1	3.36	85.92	6.71	
	CLA D3	3.0	1.637	20.9	7.2				
	D4								
10	FCL D1A	0.8	0.838	21.8	7.0				
	FCL D1B	0.9	0.838	21.9	6.9				
	FCL D2	1.2	0.419	21.9	7.1	3.23	78.48	6.46	
	CLA D3	3.0	1.677	21.9	7.2				
	D4								
11	FCL D1A	0.6	0.840	22.3	6.8				
	FCL D1B	0.6	0.840	22.2	6.9				
	FCL D2	0.8	0.420	21.9	7.2	2.34	53.66	4.68	
	CLA D3	2.7	1.681	22.5	7.2				
	D4								
12	FCL D1A	1.1	0.867	21.8	7.1				
	FCL D1B	1.1	0.867	22.1	7.1				
	FCL D2	1.0	0.433	22.6	7.1	3.13	77.51	6.27	
	CLA D3	2.4	1.735	22.4	7.3				
	D4								
13	FCL D1A	1.0	0.878	21.0	6.9				
	FCL D1B	0.9	0.878	21.1	7.0				
	FCL D2	0.9	0.439	21.5	7.2	2.54	62.66	5.07	
	CLA D3	2.2	1.756	21.2	7.0				
	D4								
14	FCL D1A	0.8	0.848	20.7	7.2				
	FCL D1B	0.8	0.848	20.4	7.2				
	FCL D2	0.9	0.424	21.3	7.2	2.37	59.95	4.73	
	CLA D3	2.0	1.696	21.4	7.3				
	D4								
15	FCL D1A	1.0	0.853	20.5	7.1				
	FCL D1B	0.9	0.853	20.5	7.1				
	FCL D2	1.3	0.426	20.5	7.4	2.85	77.11	5.70	
	CLA D3	2.5	1.707	21.3	7.2				
	D4								
16	FCL D1A	0.9	0.861	21.2	7.1				
	FCL D1B	0.9	0.861	21.6	7.0				
	FCL D2	1.1	0.430	21.7	7.3	2.69	70.67	5.37	
	CLA D3	2.1	1.722	21.8	7.2				
	D4								

NOTE: "Time₁₀" column to show the length of time that the total inactivation ratio was less than 1.00.

SUBMITTED BY: Tomás Sánchez Jr.

Certificate No. and Grade: WS0009456, C

Date: December 10, 2015

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: November

Year: 2015

DISINFECTION PROCESS PARAMETERS									
APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS			
Parameters	Disinfection Zones					Log Inactivations			
	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 (min)	
FCL D1B	0.5	0.856	21.0	7.4						
FCL D2	0.7	0.428	20.4	7.5	1.62	43.80	3.24			
CLA D3	2.0	1.713	21.1	7.8						
D4										
18	FCL D1A	0.7	0.778	19.7	7.8					
	FCL D1B	0.7	0.778	19.2	7.5					
	FCL D2	1.3	0.389	20.2	7.4	2.77	77.27	5.54		
	CLA D3	2.3	1.556	19.8	7.5					
D4										
19	FCL D1A	1.0	0.768	19.9	7.6					
	FCL D1B	0.9	0.768	19.7	7.6					
	FCL D2	1.0	0.384	21.0	7.7	2.44	73.55	4.87		
	CLA D3	2.3	1.536	20.1	7.9					
D4										
20	FCL D1A	0.8	0.807	21.5	7.0					
	FCL D1B	0.8	0.807	21.6	7.0					
	FCL D2	0.8	0.403	21.3	7.3	2.34	57.30	4.68		
	CLA D3	2.1	1.615	21.7	7.1					
D4										
21	FCL D1A	0.9	0.754	21.2	7.3					
	FCL D1B	1.0	0.754	21.7	7.1					
	FCL D2	0.6	0.377	21.3	7.0	2.12	52.70	4.23		
	CLA D3	1.0	1.509	21.0	7.5					
D4										
22	FCL D1A	0.8	0.784	20.0	7.1					
	FCL D1B	0.7	0.784	20.0	7.0					
	FCL D2	0.5	0.392	20.0	7.0	2.01	40.79	4.03		
	CLA D3	3.8	1.589	20.0	7.2					
D4										
23	FCL D1A	0.7	0.799	19.8	7.4					
	FCL D1B	0.7	0.799	19.7	7.3					
	FCL D2	0.1	0.399	19.3	7.4	0.78	17.85	1.55		
	CLA D3	1.5	1.599	20.7	7.6					
D4										
24	FCL D1A	0.7	0.843	21.1	7.2					
	FCL D1B	0.6	0.843	21.0	7.1					
	FCL D2	0.6	0.421	19.9	7.4	1.62	40.38	3.25		
	CLA D3	1.8	1.687	20.9	7.3					
D4										

PERFORMANCE DATA										
DISINFECTION PROCESS DATA										
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time (min)	
FCL D1B	0.5	0.810	19.9	7.1						
FCL D2	0.8	0.405	19.5	7.3	1.81	46.99	3.62			
CLA D3	1.7	1.621	20.1	7.2						
D4										
26	FCL D1A	0.5	0.791	20.7	7.5					
	FCL D1B	0.6	0.791	21.4	7.2					
	FCL D2	1.1	0.395	20.5	7.5	2.45	68.40	4.90		
	CLA D3	2.2	1.582	21.7	7.6					
D4										
27	FCL D1A	0.5	0.776	20.5	7.6					
	FCL D1B	0.6	0.776	20.7	7.3					
	FCL D2	0.7	0.388	20.2	7.6	1.63	43.97	3.27		
	CLA D3	1.9	1.552	20.9	7.3					
D4										
28	FCL D1A	0.3	0.794	18.7	7.1					
	FCL D1B	0.4	0.794	18.5	7.3					
	FCL D2	0.7	0.397	18.7	7.6	1.36	35.02	2.73		
	CLA D3	2.1	1.588	18.5	7.3					
D4										
29	FCL D1A	0.1	0.820	17.7	7.1					
	FCL D1B	0.2	0.820	17.9	7.0					
	FCL D2	0.2	0.410	19.0	7.1	0.61	11.23	1.21		
	CLA D3	1.9	1.640	18.1	7.0					
D4										
30	FCL D1A	0.4	0.832	18.3	7.1					
	FCL D1B	0.4	0.832	18.3	7.1					
	FCL D2	0.6	0.416	18.7	7.1	1.37	30.67	2.73		
	CLA D3	2.0	1.664	19.2	7.4					
D4										
31	D1A									
	D1B									
	D2									
	D3									
D4										
						Max	4.04	98.83	8.09	
						Min	0.61	11.23	1.21	
						Avg	2.39	59.58	4.77	
						SD	0.82	21.31	1.64	

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

SUBMITTED BY: Tommy Sanchez Jr.

Certificate No. and Grade: WS0009456, C

Date: December 10, 2015

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
 PWS ID No.: 2400022

Plant ID No.: 20831

PLANT NAME OR NUMBER: Rio Bravo
 Month: November Year: 2015

Type of treatment: 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										
1	11/4	120	4.07	2.72	33.2	35	0.95			0.95
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
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28										
29										
30										
31										
Avg		120.00	4.07	2.72	33.17		0.95			0.95
Max		120.00	4.07	2.72	33.17		0.95			0.95
Min		120.00	4.07	2.72	33.17		0.95			0.95

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
120	4.07	2.72	33.2	NA	0.95

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: WS0009456, C

Date: December 10, 2015

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