

# 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: December 2015

Certificate No. & Grade: WS0009456, C

Date: January 10, 2016

### TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	134	Number of 4-hour periods when plant was off-line:	52
Number of readings above 0.10 NTU:	84	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)		
Statistical Summary	Maximum turbidity reading: 0.25 NTU Minimum turbidity reading: 0.05 NTU CFE 95 <sup>th</sup> percentile value: 0.20 NTU	Average turbidity value: 0.13 NTU Standard deviation: 0.045 NTU IFE 95 <sup>th</sup> percentile: 0.247 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>	UV: <u>0.0</u>
Bank Filtration: <u>0.0</u>	Enhanced Filter Performance: <u>0.0</u>	Ozone, Chlorine Dioxide: <u>0.0</u>	Perform. Demonstration: <u>0.0</u>
Presedimentation with Coagulation: <u>0.0</u>	Bag and Cartridge Filtration: <u>0.0</u>		
Two-Stage Lime Softening: <u>0.0</u>	Membrane Filtration: <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>1.60</u>	Average log inactivation for viruses: <u>42.23</u>	
Number of days with a low CT for more than 4.0 consecutive hours: <u>0</u> (4)	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 when disinfectant residual leaving the plant was not properly monitored: <u>15</u>	
Number of days with a low residual for more than 4.0 consecutive hours: <u>0</u> (5)			

### 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>39</u> (at least 31 required) (8)	Percentage of readings with a low residual this month: <u>0.0</u> % (6A)
Average disinfectant residual value: <u>1.42</u>	Percentage of readings with a low residual last month: <u>0.0</u> % (6B)
Number of readings with a low residual: <u>0</u>	
Number of readings with no detectable residual: <u>0</u>	

### 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

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: Rlo Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: December 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				1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31
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				1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,
	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: WS0009456, C

Date: January 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: December Year: 2015

PUBLIC NOTICES						
VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ	NOTICE TO CUSTOMER *		VIOLATION DATES
			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.
- \* Copies of each Public Notice must accompany this report if they have already been issued.

SUMMITTED BY: TOMAS SANCHEZ JR.

Certificate No. and Grade: WS0009456, C

Date: January 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.)

*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>1,863</u>
Month: <u>December</u> Year: <u>2015</u>	Population: <u>6,521</u>

PERFORMANCE DATA																			
Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES		SETTLED WATER TURBIDITY (Optional Data)						FINISHED WATER QUALITY								
			NTU	Alk.	Basin No.						Combined Filter Effluent Turbidity						Lowest Residual	Time	
					1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6			
1	1.013	0.626	7	120	0.8	0.2						0.12	0.15	0.15	0.16	0.17	0.16	MD	
2	1.117	0.719	8	140	2.5	0.6						0.14	0.18	0.17	0.15	0.16	0.13	MD	
3	1.003	0.681	6	140	1.5	0.5						0.13	0.15	0.20	0.12	0.12	0.12	MD	
4	1.078	0.741	7	140	1.5	0.5						0.11	0.11	0.11	0.11	0.12	0.11	MD	
5	1.016	0.704	5	140	1.3	0.5						X	X	X	0.10	0.10	0.10	MD	
6	1.038	0.743	4	140	1.3	0.5						X	X	X	0.10	0.11	0.13	MD	
7	1.103	0.694	7	140	1.3	0.6						0.13	0.13	0.14	0.17	0.18	0.17	MD	
8	1.115	0.718	6	120	1.3	0.5						0.15	0.13	0.15	0.20	0.22	0.20	MD	
9	1.257	0.699	6	120	1.5	0.6						0.20	0.18	0.18	0.18	0.17	0.16	MD	
10	1.034	0.740	7	120	1.1	0.7						0.17	0.14	0.17	0.18	0.10	0.05	MD	
11	1.535	0.749	7	140	4.3	1.9						0.08	0.07	0.07	0.12	0.08	0.18	MD	
12	0.782	0.625	5	140	1.2	1.9						0.12	0.17	X	0.14	0.15	X	MD	
13	0.989	0.654	8	140	1.2	1.1						X	X	0.13	0.14	0.18	0.19	MD	
14	1.022	0.708	11	140	1.4	1.8						X	X	X	0.20	0.19	0.22	MD	
15	1.061	0.793	9	140	1.4	2.1						0.21	X	X	0.25	0.23	0.18	MD	
16	0.979	0.679	11	140	0.8	1.1						X	X	X	0.17	0.12	0.12	1.6	
17	1.007	0.679	8	140	1.3	0.6						0.11	X	X	0.13	0.10	0.10	1.1	
18	1.013	0.662	8	140	1.4	1.8						X	X	X	0.11	0.11	0.10	1.3	
19	0.992	0.715	7	140	1.5	1.0						X	X	X	0.09	0.10	0.09	1.3	
20	1.013	0.653	9	160	2.1	1.4						0.13	X	X	0.11	0.10	0.07	1.7	
21	0.998	0.720	8	160	1.8	1.3						0.11	X	0.11	0.11	0.11	0.08	1.8	
22	1.098	0.716	8	160	2.3	0.9						0.06	X	X	0.08	0.17	0.10	1.6	
23	1.188	0.826	9	160	0.6	0.8						0.10	X	0.07	0.06	0.07	0.10	2.2	
24	1.072	0.655	10	120	1.9	1.0						0.10	X	X	0.09	0.08	0.09	1.0	
25	0.931	0.702	9	120	1.0	1.0						X	X	X	0.10	0.20	0.21	1.0	
26	1.197	0.713	8	120	0.6	0.9						X	X	X	0.07	0.18	0.12	0.9	
27	1.160	0.608	9	120	2.2	0.8						0.16	X	X	0.08	0.07	0.08	1.5	
28	0.918	0.671	7	140	2.6	0.7						X	X	X	0.07	0.09	0.06	1.8	
29	0.925	0.629	8	140	3.5	1.1						X	X	0.06	0.07	0.06	0.07	1.1	
30	0.973	0.600	8	140	2.9	1.0						X	X	0.06	0.06	X	0.07	1.3	
31	1.156	0.564	13	140	3.8	1.4						0.06	X	X	0.06	0.06	0.07	2.5	
Total	32.783	21.386																	
Avg	1.058	0.690																	
Max	1.535	0.826																	
Min	0.782	0.564																	

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: WS0009456, C      Date: January 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.)

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: December 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	0.17		0.15		0.15		0.16													
2	0.16		0.14		0.12		0.12													
3	0.12		0.10		0.12		0.12													
4	0.17		0.12		0.12		0.12													
5	0.17		0.12		0.11		0.14													
6	0.16		0.17		0.13		0.15													
7	0.20		0.16		0.14		0.15													
8	0.21		0.26		0.17		0.14													
9	0.26		0.12		0.12		0.17													
10	0.27		0.12		0.19		0.16													
11	0.18		0.14		0.18		0.15													
12	0.12		0.12		0.12		0.16													
13	0.13		0.16		0.12		0.13													
14	0.18		0.20		0.12		0.14													
15	0.19		0.14		0.15		0.14													
16	0.12		0.17		0.17		0.19													
17	0.16		0.21		0.17		0.19													
18	0.12		0.16		0.18		0.21													
19	0.20		0.15		0.15		0.17													
20	0.12		0.19		0.19		0.17													
21	0.25		0.27		0.25		0.24													
22	0.13		0.23		0.15		0.18													
23	0.23		0.16		0.19		0.24													
24	0.11		0.17		0.19		0.17													
25	0.13		0.14		0.20		0.17													
26	0.11		0.17		0.18		0.19													
27	0.21		0.24		0.27		0.16													
28	0.13		0.14		0.19		0.15													
29	0.20		0.16		0.15		0.14													
30	0.19		0.20		0.12		0.22													
31	0.14		0.11		0.09		0.10													

  

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: Tomas Sanchez Jr.

Certificate No. and Grade: WS0009456, C Date: January 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.)  
Disinfection Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility  
PWS ID No.: 2400022 Plant ID No.: 20831

PLANT NAME OR NUMBER: Rio Bravo  
Month: December 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 <sub>10</sub> (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 <sup>1</sup>
1	FCL D1A	0.5	0.822	17.7	7.2	/	/	/	/
	FCL D1B	0.4	0.822	17.7	7.2	/	/	/	/
	FCL D2	0.4	0.411	19.4	7.5	1.01	24.00	2.03	
	CLA D3	1.9	1.644	18.2	7.5	/	/	/	/
	D4					/	/	/	/
2	FCL D1A	0.7	0.840	17.7	7.4	/	/	/	/
	FCL D1B	0.6	0.840	17.7	7.3	/	/	/	/
	FCL D2	0.9	0.420	18.8	7.8	1.56	46.40	3.12	
	CLA D3	1.8	1.681	18.5	8.0	/	/	/	/
	D4					/	/	/	/
3	FCL D1A	0.7	0.824	18.7	7.4	/	/	/	/
	FCL D1B	0.6	0.824	18.7	7.4	/	/	/	/
	FCL D2	1.0	0.412	19.5	7.9	1.82	56.02	3.63	
	CLA D3	2.0	1.648	18.9	7.8	/	/	/	/
	D4					/	/	/	/
4	FCL D1A	0.9	0.813	18.0	7.4	/	/	/	/
	FCL D1B	0.8	0.813	17.8	7.3	/	/	/	/
	FCL D2	1.2	0.406	18.8	7.6	2.11	63.01	4.22	
	CLA D3	1.7	1.627	18.3	7.4	/	/	/	/
	D4					/	/	/	/
5	FCL D1A	0.9	0.795	18.3	7.5	/	/	/	/
	FCL D1B	0.9	0.795	18.0	7.3	/	/	/	/
	FCL D2	1.1	0.397	18.6	7.8	2.07	65.16	4.13	
	CLA D3	2.1	1.591	18.4	7.6	/	/	/	/
	D4					/	/	/	/
6	FCL D1A	0.9	0.767	18.9	7.4	/	/	/	/
	FCL D1B	0.9	0.767	18.8	7.2	/	/	/	/
	FCL D2	1.1	0.383	18.9	7.9	2.18	67.45	4.36	
	CLA D3	2.2	1.535	19.1	7.7	/	/	/	/
	D4					/	/	/	/
7	FCL D1A	0.5	0.752	18.0	7.4	/	/	/	/
	FCL D1B	0.6	0.752	18.0	7.4	/	/	/	/
	FCL D2	0.8	0.376	18.9	7.8	1.59	45.13	3.19	
	CLA D3	2.1	1.504	18.5	7.7	/	/	/	/
	D4					/	/	/	/
8	FCL D1A	0.5	0.771	19.8	7.7	/	/	/	/
	FCL D1B	0.6	0.771	19.9	7.4	/	/	/	/
	FCL D2	1.0	0.385	18.6	7.8	1.84	58.19	3.68	
	CLA D3	2.1	1.543	20.0	7.7	/	/	/	/
	D4					/	/	/	/

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>1</sup>
9	FCL D1A	0.4	0.790	20.1	7.8	/	/	/	/
	FCL D1B	0.6	0.790	19.9	7.3	/	/	/	/
	FCL D2	1.1	0.395	18.9	7.4	2.01	56.00	4.02	
	CLA D3	1.8	1.581	20.3	7.4	/	/	/	/
	D4					/	/	/	/
10	FCL D1A	0.3	0.793	18.8	7.5	/	/	/	/
	FCL D1B	0.4	0.793	18.9	7.4	/	/	/	/
	FCL D2	1.3	0.396	19.3	7.2	2.48	65.93	4.96	
	CLA D3	1.9	1.586	18.4	7.5	/	/	/	/
	D4					/	/	/	/
11	FCL D1A	0.2	0.815	18.6	7.5	/	/	/	/
	FCL D1B	0.2	0.815	19.3	7.7	/	/	/	/
	FCL D2	0.8	0.407	19.2	7.8	1.36	40.47	2.73	
	CLA D3	1.6	1.630	19.7	7.7	/	/	/	/
	D4					/	/	/	/
12	FCL D1A	0.5	0.815	21.0	7.5	/	/	/	/
	FCL D1B	0.4	0.850	21.1	7.5	/	/	/	/
	FCL D2	0.9	0.407	20.4	7.6	1.87	50.85	3.74	
	CLA D3	2.2	1.631	21.0	7.3	/	/	/	/
	D4					/	/	/	/
13	FCL D1A	0.5	0.802	20.9	7.0	/	/	/	/
	FCL D1B	0.6	0.802	21.0	7.1	/	/	/	/
	FCL D2	0.6	0.401	20.6	7.1	1.86	42.75	3.73	
	CLA D3	1.8	1.604	21.3	7.0	/	/	/	/
	D4					/	/	/	/
14	FCL D1A	0.7	0.781	19.7	7.2	/	/	/	/
	FCL D1B	0.9	0.781	19.9	7.2	/	/	/	/
	FCL D2	0.8	0.390	19.9	7.2	2.21	51.12	4.42	
	CLA D3	3.1	1.562	20.5	7.2	/	/	/	/
	D4					/	/	/	/
15	FCL D1A	0.7	0.781	19.3	7.0	/	/	/	/
	FCL D1B	0.9	0.781	19.2	7.0	/	/	/	/
	FCL D2	0.6	0.390	19.0	7.1	1.90	41.75	3.81	
	CLA D3	2.8	1.563	18.9	7.0	/	/	/	/
	D4					/	/	/	/
16	FCL D1A	0.8	0.800	20.0	7.0	/	/	/	/
	FCL D1B	0.9	0.800	20.0	7.0	/	/	/	/
	FCL D2	0.5	0.400	19.0	7.0	1.66	36.66	3.33	
	CLA D3	2.1	1.601	19.0	6.9	/	/	/	/
	D4					/	/	/	/

NOTE: <sup>1</sup> 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: WS0009456, C Date: January 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.)  
*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: December

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 <sub>10</sub> (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	0.3	0.815	17.9	7.0				
	FCL D1B	0.4	0.815	18.1	7.0				
	FCL D2	0.4	0.407	18.4	7.1	1.11	22.92	2.23	
	CLA D3	2.3	1.630	17.5	7.0				
	D4								
18	FCL D1A	0.5	0.822	18.4	7.7				
	FCL D1B	0.6	0.822	18.2	7.3				
	FCL D2	0.6	0.411	18.6	7.5	1.37	34.68	2.74	
	CLA D3	2.3	1.645	19.1	7.4				
	D4								
19	FCL D1A	1.0	0.835	18.1	7.6				
	FCL D1B	0.9	0.835	18.2	7.5				
	FCL D2	0.9	0.417	17.9	7.5	1.90	51.02	3.79	
	CLA D3	2.3	1.371	19.4	7.6				
	D4								
20	FCL D1A	0.7	0.826	17.8	7.4				
	FCL D1B	0.9	0.826	18.0	7.4				
	FCL D2	0.4	0.413	17.4	7.6	1.12	26.85	2.23	
	CLA D3	2.5	1.653	17.3	7.4				
	D4								
21	FCL D1A	0.7	0.810	18.4	7.5				
	FCL D1B	0.9	0.810	18.3	7.5				
	FCL D2	0.5	0.405	18.1	7.5	1.28	31.47	2.55	
	CLA D3	2.6	1.620	18.1	7.5				
	D4								
22	FCL D1A	0.8	0.791	20.0	7.8				
	FCL D1B	0.9	0.791	20.0	7.4				
	FCL D2	0.4	0.395	20.0	7.8	1.30	34.84	2.60	
	CLA D3	2.5	1.582	20.0	7.5				
	D4								
23	FCL D1A	0.8	0.789	21.0	7.5				
	FCL D1B	0.8	0.789	20.0	7.6				
	FCL D2	0.7	0.394	21.0	7.6	1.97	53.87	3.94	
	CLA D3	2.4	1.579	21.0	7.7				
	D4								
24	FCL D1A	0.7	0.786	18.7	7.4				
	FCL D1B	0.6	0.786	18.8	7.4				
	FCL D2	0.5	0.393	20.0	7.5	1.49	35.91	2.97	
	CLA D3	2.6	1.573	18.5	7.4				
	D4								

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
25	FCL D1A	0.9	0.826	20.0	7.4				
	FCL D1B	0.9	0.826	20.0	7.2				
	FCL D2	0.4	0.413	20.0	7.3	1.41	34.39	2.82	
	CLA D3	2.0	1.653	20.0	7.7				
	D4								
26	FCL D1A	0.8	0.847	23.0	7.5				
	FCL D1B	0.8	0.847	23.0	7.5				
	FCL D2	0.6	0.423	22.0	7.4	1.79	46.59	3.58	
	CLA D3	1.7	1.694	23.0	7.8				
	D4								
27	FCL D1A	0.2	0.833	21.7	8.1				
	FCL D1B	0.2	0.833	21.3	7.5				
	FCL D2	0.3	0.416	22.7	7.6	0.82	18.99	1.64	
	CLA D3	2.0	1.666	21.0	7.5				
	D4								
28	FCL D1A	0.6	0.804	18.1	7.5				
	FCL D1B	0.6	0.804	17.8	7.3				
	FCL D2	0.4	0.402	17.3	7.5	1.13	26.80	2.26	
	CLA D3	2.4	1.608	17.6	7.6				
	D4								
29	FCL D1A	0.7	0.784	17.7	7.3				
	FCL D1B	0.9	0.784	17.5	7.8				
	FCL D2	0.4	0.392	17.0	7.8	1.19	28.49	2.37	
	CLA D3	2.4	1.569	18.1	7.6				
	D4								
30	FCL D1A	0.7	0.765	17.5	7.1				
	FCL D1B	0.7	0.765	16.9	7.1				
	FCL D2	0.3	0.382	17.2	7.3	1.04	22.17	2.09	
	CLA D3	2.5	1.530	17.1	7.4				
	D4								
31	FCL D1A	0.7	0.776	17.6	7.2				
	FCL D1B	0.6	0.776	17.2	7.2				
	FCL D2	0.5	0.388	17.0	7.7	1.07	31.10	2.14	
	CLA D3	0.4	1.552	18.2	7.4				
	D4								
						Max	2.48	67.45	4.96
						Min	0.82	18.99	1.64
						Avg	1.60	42.23	3.19
						SD	0.42	13.84	0.84

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

SUBMITTED BY: Thomas Sanchez Jr.

Certificate No. and Grade: WS0009456, C

Date: January 10, 2016

# 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: December 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			calculated	calculated from matrix	calculated			calculated
1	12/7	140	3.70	2.06	44.3	15	2.95			2.95
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
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29										
30										
31										
Avg		140.00	3.70	2.06	44.32		2.95			2.95
Max		140.00	3.70	2.06	44.32		2.95			2.95
Min		140.00	3.70	2.06	44.32		2.95			2.95

### TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
140	3.70	2.06	44.3	NA	2.95

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: January 10, 2016

**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