

# Appendix E: EXAMPLE OF A COMPLETED SWMOR

## 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: Aguaville PWS

PLANT NAME  
OR NUMBER: Schwartz Plant

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.: 1234567  
Report for  
the Month of: February 2011

Operator's Signature: Hardy Worker

Certificate No. & Grade: WS1234567, BS

Date: March 9, 2011

TREATMENT PLANT PERFORMANCE			
Total number of turbidity readings:	<u>133</u>	Number of 4-hour periods when plant was off-line:	<u>34</u>
Number of readings above 0.10 NTU:	<u>114</u>	Number of 4-hour periods when plant was on-line but turbidity data was not collected:	<u>1</u>
Number of readings above 0.3 NTU:	<u>5</u>	Number of days when plant was on-line but individual filter turbidity data was not collected:	<u>1</u>
Number of readings above 0.5 NTU:	<u>3</u>	Number of days with readings above 1.0 NTU:	<u>1</u> (2)
Number of readings above 1.0 NTU:	<u>2</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>3.8</u> % (1)		
Statistical Summary	Maximum turbidity reading: <u>1.17</u> NTU	Average turbidity value:	<u>0.23</u> NTU
	Minimum turbidity reading: <u>0.03</u> NTU	Standard deviation:	<u>0.149</u> NTU
	CFE 95 <sup>th</sup> percentile value: <u>0.34</u> NTU	IFE 95 <sup>th</sup> percentile:	<u>0.484</u> NTU
Number of days with a low CT for no more than 4.0 consecutive hours:	<u>1</u>	Average log inactivation for Giardia:	<u>3.26</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>61.43</u>
		Number of days when profiling data was not collected:	<u>1</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>1</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>1</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>116</u> (at least 28 required) (8)		
Average disinfectant residual value:	<u>2.12</u>	Percentage of readings with a low residual this month:	<u>2.6</u> % (6A)
Number of readings with a low residual:	<u>3</u>		
Number of readings with no detectable residual:	<u>1</u>	Percentage of readings with a low residual last month:	<u>1.4</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:	<input type="radio"/> NONE	<input checked="" type="radio"/> Filter Profile	<input checked="" type="radio"/> Filter Assessment
Additional report(s) for individual filter monitoring submitted:	<input checked="" type="radio"/> NONE	<input type="radio"/> Filter Profile (9)	<input type="radio"/> Filter Assessment (10)
Additional IFE Reports are required this month.			<input type="radio"/> CPE (11)

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: Aguaville PWS

PLANT NAME OR NUMBER: Schwartz Plant

PWS ID No.: 1234567

Month: February

Year: 2011

PUBLIC NOTICES						
VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ <input type="checkbox"/>		NOTICE TO CUSTOMER *	
			DATE OF NOTICE	DATE OF NOTICE	PENDING	VIOLATION DATES
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	Yes	02/05/11		YES	4,
	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				
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	Yes	03/09/11		YES	1,
	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	03/09/11		YES	18,
	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	Yes	03/09/11		YES	12,
	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	Yes	03/09/11		YES	12,
	Did the plant fail to submit a Filter Profile Report if one was required? - see (9) on the Summary page	Yes	03/09/11		YES	February 2011
	Did the plant fail to submit a Filter Assessment Report if one was required? - see (10) on the Summary Page	Yes	03/09/11		YES	February 2011
	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: Hardy Worker

Certificate No. and Grade: WS1234567, BS

Date: March 9, 2011

TCEQ - 0102C (11-10-09)

PAGE 1 - Addendum

SWMOR

# 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: Aguaville PWS PLANT NAME OR NUMBER: Schwartz Plant  
 PWS ID No.: 1234567 Connections: 4,321  
 Month: February Year: 2011 Population: 13,500

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.						Turbidity						Lowest Residual	Time			
					1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6					
1	1.411	1.322	49	52	2.4	1.9							X	0.19	0.07	0.03	0.31	ND	2.4		
2	1.484	1.444	26	68	2.8	1.8							X	0.33	0.24	0.27	0.15	0.12	3.4		
3	1.598	1.511	12	59	2.1	2.2							X	0.23	0.08	0.12	0.17	0.26	3.1		
4	1.154	1.084	80	92	5.2	4.3							X	0.34	0.46	0.78	1.06	1.17	2.3		
5	0.000	0.889	X	X	X	X							X	X	X	X	X	X	1.1		
6	2.650	1.103	15	61	1.8	1.4							X	X	0.26	0.32	0.21	0.10	2.8		
7	1.302	1.239	73	55	2.3	2.0							X	0.13	0.28	0.38	0.34	0.30	3.0		
8	1.337	1.280	10	47	1.7	1.9							X	0.27	0.24	0.17	0.19	0.04	2.7		
9	1.701	1.687	24	53	1.9	1.6							X	0.24	0.32	0.25	0.18	0.12	0.3	0.75	
10	1.408	1.397	16	44	1.2	1.1							X	0.04	0.08	0.07	0.21	0.11	1.9		
11	1.457	1.402	70	62	1.8	1.5							X	0.33	0.06	0.20	0.23	0.34	2.2		
12	1.537	1.522	98	43	3.2	2.3							X	0.29	0.08	0.16	0.14	0.27	3.1		
13	1.092	1.084	16	57	2.2	1.8							X	0.33	0.28	0.10	0.27	0.29	2.0		
14	1.564	1.506	68	48	2.0	1.7							X	0.23	0.26	0.31	0.28	0.03	1.4		
15	1.361	1.278	93	69	2.6	2.1							X	0.30	0.20	0.23	0.05	0.25	1.8		
16	1.879	1.794	10	55	2.1	1.9							X	0.31	0.21	0.17	0.28	0.22	1.5		
17	0.109	0.000	91	58	2.2	X							X	0.20	0.31	0.24	0.34	0.20	X		
18	0.230	0.050	95	64	2.5	X							X	0.17	0.13	0.16	0.32	0.28	MD		
19	1.630	1.557	26	53	3.0	2.5							X	0.22	0.09	0.15	0.18	0.11	2.6		
20	1.293	1.272	21	39	2.3	2.4							X	0.16	0.11	0.19	0.08	0.05	2.6		
21	1.249	1.210	80	61	2.9	2.5							X	0.29	0.26	0.12	0.05	0.31	2.9		
22	1.913	1.894	91	71	2.7	2.0							X	0.14	0.17	0.04	0.05	0.33	1.6		
23	1.926	1.834	95	66	2.4	1.8							X	0.23	0.17	0.26	0.27	0.24	3.0		
24	1.018	0.930	23	54	1.5	1.6							X	0.19	0.16	0.14	0.22	0.32	2.2		
25	1.104	1.016	60	47	2.2	1.4							X	0.20	0.24	0.21	0.18	0.15	2.3		
26	1.934	1.896	25	48	1.7	1.5							X	0.25	0.17	0.27	0.29	0.14	3.2		
27	1.337	1.321	50	37	2.6	2.2							X	0.18	0.30	0.26	0.33	0.27	1.7		
28	1.909	1.893	64	47	2.5	1.9							X	0.21	0.19	0.26	0.15	0.12	2.3		
29																					
30																					
31																					
Total	38.587	36.415																			
Avg	1.378	1.301																			
Max	2.650	1.896																			
Min	0.000	0.000																			

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: Hardy Worker Certificate No. and Grade: WS1234567, BS Date: March 9, 2011

**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: Aguaville PWS

PLANT NAME  
 OR NUMBER: Schwartz Plant

PWS ID No.: 1234567

Month: February Year: 2011

PERFORMANCE DATA																											
Date	INDIVIDUAL FILTER TURBIDITY																										
	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	0.37	0.19	0.18	0.11	0.22	0.14	0.31	0.16	0.42	0.22	0.35	0.18															
2	0.38	0.21	0.21	0.13	0.25	0.11	0.33	0.13	0.47	0.23	0.40	0.13															
3	0.41	0.27	0.23	0.15	0.21	0.13	0.29	0.13	0.39	0.26	0.27	0.19															
4	1.32	0.57	0.72	0.34	0.67	0.26	0.87	0.48	1.05	0.52	0.84	0.40															
5	X	X	X	X	X	X	X	X	X	X	X	X															
6	0.27	0.16	0.27	0.14	0.29	0.09	0.42	0.20	0.46	0.19	0.37	0.12															
7	0.35	0.22	0.17	0.09	0.23	0.12	0.37	0.16	0.49	0.23	0.33	0.18															
8	0.33	0.17	0.22	0.12	0.17	0.08	0.32	0.13	0.38	0.17	0.26	0.17															
9	0.28	0.15	0.16	0.08	0.24	0.10	0.41	0.14	0.34	0.18	0.29	0.10															
10	0.21	0.19	0.14	0.07	0.11	0.05	0.26	0.15	0.41	0.21	0.32	0.23															
11	0.24	0.17	0.18	0.11	0.30	0.16	0.34	0.14	0.28	0.16	0.25	0.16															
12	0.36	0.20	0.19	0.10	MD	ND	0.42	0.21	0.48	0.24	0.38	0.20															
13	0.19	0.12	0.10	0.06	0.26	0.11	0.33	0.17	1.24	0.48	0.22	0.15															
14	0.29	0.18	0.23	0.09	0.18	0.10	0.35	0.16	0.40	0.20	0.29	0.13															
15	0.42	0.21	0.22	0.13	0.16	0.06	0.28	0.12	0.37	0.15	0.31	0.19															
16	0.26	0.17	0.15	0.08	0.27	0.15	0.32	0.19	0.39	0.15	0.36	0.21															
17	0.34	X	0.25	0.12	X	X	X	X	X	X	X	X															
18	0.18	0.16	0.24	0.14	X	X	X	X	X	X	X	X															
19	0.26	0.18	0.14	0.08	0.23	0.14	0.32	0.17	0.46	0.26	0.32	0.16															
20	0.25	0.15	0.20	0.11	0.27	0.17	0.38	0.18	0.39	0.24	0.26	0.13															
21	0.41	0.24	0.23	0.10	0.18	0.12	0.33	0.15	0.32	0.19	0.38	0.20															
22	0.39	0.22	0.19	0.13	0.20	0.13	0.29	0.20	0.42	0.23	0.23	0.17															
23	0.32	0.19	0.18	0.09	0.26	0.18	0.41	0.23	0.37	0.18	0.33	0.12															
24	0.27	0.17	0.22	0.15	0.28	0.11	0.39	0.19	0.40	0.25	0.37	0.18															
25	0.22	0.15	0.21	0.12	0.14	0.08	0.31	0.20	0.35	0.20	0.35	0.20															
26	0.26	0.21	0.16	0.07	0.17	0.08	0.29	0.16	0.45	0.27	0.30	0.15															
27	0.31	0.25	0.25	0.11	0.21	0.12	0.36	0.14	0.41	0.28	0.27	0.11															
28	0.29	0.20	0.16	0.09	0.19	0.10	0.30	0.18	0.38	0.22	0.29	0.13															
29																											
30																											
31																											

SUMMARY & COMPLIANCE ACTIONS	Filter No.										Plant	
	1	2	3	4	5	6	7	8	9	10		
Criteria												
Number of days with event(s) above 0.5 NTU at 4.0 hrs this month	1	0	0	0	0	0	0					
Number of days with event(s) above 1.0 NTU this month	1	0	0	0	0	2	0					
Number of days with event(s) above 1.0 NTU last month	0	0	0	0	1	1						
Number of days with event(s) above 1.0 NTU two months ago	1	0	2	3	1	1						
Total number of days with event(s) above 1.0 NTU in three months	2	0	2	3	4	2						
Number of days with event(s) above 2.0 NTU this month												0
Number of days with event(s) above 2.0 NTU last month												0
Does the filter/plant have an approved Corrective Action Plan?	N	N	N	N	N	N	N					N
Is the plant required to submit a Filter Profile Report?	Y	N	N	N	Y	N						
Is the plant required to submit a Filter Assessment Report?	N	N	N	N	Y	N						
Is the plant required to submit a Request for Compliance CPE?												N

SUBMITTED BY: Hardy Worker

Certificate No. \_\_\_\_\_  
 and Grade: WS1234567, BS Date: March 9, 2011

# 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: Aguaville PWS

PLANT NAME OR NUMBER: Schwartz Plant

PWS ID No.: 1234567

Month: February Year: 2011

DISINFECTION PROCESS PARAMETERS							
APPROVED CT STUDY PARAMETERS					PERFORMANCE STANDARDS		
Parameters	Disinfection Zones					Log Inactivations	
	D1	D2	D3	D4	D5	Giardia lamblia Cysts	Viruses
Flow Rate (MGD)	45.000	0.480	0.960			0.5	2.0
T <sub>10</sub> (minutes)	46.7	11.7	222.1				

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>h</sup>
1	NA D1								
	FCL D2	3.4	0.480	13.1	7.5				
	CLA D3	3.2	0.960	13.1	7.6	2.26	39.37	4.51	
	D4							(G)	
	D5								
2	NA D1								
	FCL D2	2.9	2.000	11.2	7.5				
	CLA D3	3.1	2.000	11.2	7.6	0.75	7.73	1.50	
	D4							(G)	
	D5								
3	NA D1								
	FCL D2	2.6	0.480	9.3	7.3				
	CLA D3	2.4	0.960	9.3	7.2	1.49	23.10	2.98	
	D4							(G)	
	D5								
4	FCL D1	0.4	1.440	8.9	6.8				
	FCL D2	2.5	0.480	8.9	7.2				
	CLA D3	2.2	0.960	8.9	7.3	19.04	421.51	38.09	
	D4							(G)	
	D5								
5	NA D1								
	NA D2								
	NA D3					NA	NA	NA	
	D4								
	D5								
6	NA D1								
	FCL D2	1.8	0.480	10.2	7.5				
	CLA D3	2.1	0.960	10.2	7.6	1.25	17.35	2.49	
	D4							(G)	
	D5								
7	NA D1								
	FCL D2	2.9	0.480	9.3	7.6				
	CLA D3	2.4	0.960	9.3	7.6	1.47	25.58	2.94	
	D4							(G)	
	D5								
8	NA D1								
	FCL D2	3.2	0.480	8.6	7.2				
	CLA D3	3.3	0.960	8.6	7.4	1.88	27.32	3.76	
	D4							(G)	
	D5								

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>h</sup>
9	NA D1								
	FCL D2	1.9	0.480	7.9	7.1				
	CLA D3	3.4	0.960	7.9	7.3	1.64	16.37	3.29	
	D4							(G)	
	D5								
10	NA D1								
	FCL D2	2.1	0.260	8.9	7.7				
	CLA D3	2.3	0.520	8.9	7.6	2.32	33.96	4.65	
	D4							(G)	
	D5								
11	NA D1								
	FCL D2	2.4	0.260	9.2	7.8				
	CLA D3	2.3	0.520	9.2	8.0	2.41	39.21	4.83	
	D4							(G)	
	D5								
12	NA D1								
	FCL D2	3.1	0.480	10.3	7.5				
	CLA D3	2.9	0.960	10.3	7.2	1.79	29.55	3.58	
	D4							(G)	
	D5								
13	NA D1								
	FCL D2	3.3	0.480	9.5	7.5				
	CLA D3	2.9	0.960	9.5	7.2	1.75	29.63	3.50	
	D4							(G)	
	D5								
14	NA D1								
	FCL D2	2.6	0.480	10.5	7.8				
	CLA D3	2.6	0.960	10.5	7.5	1.54	25.28	3.08	
	D4							(G)	
	D5								
15	NA D1								
	FCL D2	2.4	0.480	8.7	7.3				
	CLA D3	2.4	0.960	8.7	7.4	1.41	20.58	2.82	
	D4							(G)	
	D5								
16	FCL D1	0.2	1.440	6.1	6.8				
	FCL D2	3.1	0.480	6.1	7.2				
	CLA D3	2.9	0.960	6.1	7.3	8.79	186.80	17.59	
	D4							(G)	
	D5								

NOTES: = ONLY use the "Time=" column to show the length of time that the total inactivation ratio was less than 1.00.  
\* Not representative of total log inactivation(s) and/or total inactivation ratio for all disinfection zones; Excluded from statistical summary calculations.

SUBMITTED BY: Hardy Worker Certificate No. and Grade: WS1234567, BS Date: March 9, 2011  
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# 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: Aguaville PWS  
PWS ID No.: 1234567

PLANT NAME OR NUMBER: Schwartz Plant  
Month: February Year: 2011

DISINFECTION PROCESS PARAMETERS							
APPROVED CT STUDY PARAMETERS					PERFORMANCE STANDARDS		
Parameters	Disinfection Zones					Log Inactivations	
	D1	D2	D3	D4	D5	Giardia lamblia Cysts	Virus
Flow Rate (MGD)	45.000	0.480	0.960			0.5	2.0
T <sub>10</sub> (minutes)	46.7	11.7	222.1				

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>h</sup>
17	FCL D1	0.3	0.720	4.3	7.0				
	FCL D2	2.8	0.480	4.3	7.5				
	CLA D3	2.9	0.720	4.3	7.8	19.21	442.55	38.42	
	D4							(G)	
	D5								
18	NA D1								
	FCL D2	2.5	0.480	8.1	7.6				
	CLA D3	2.6	0.960	8.1	7.7	1.39	20.63	2.79	
	D4							(G)	
	D5								
19	NA D1								
	FCL D2	3.1	0.480	9.9	7.5				
	CLA D3	2.9	0.960	9.9	7.5	1.75	28.75	3.51	
	D4							(G)	
	D5								
20	NA D1								
	FCL D2	3.0	0.480	10.3	7.2				
	CLA D3	2.7	0.960	10.3	7.4	1.78	28.52	3.57	
	D4							(G)	
	D5								
21	NA D1								
	FCL D2	2.8	0.480	11.2	7.7				
	CLA D3	2.9	0.960	11.2	7.6	1.77	28.64	3.54	
	D4							(G)	
	D5								
22	NA D1								
	FCL D2	2.1	0.480	10.9	7.4				
	CLA D3	1.9	0.960	10.9	7.5	1.30	20.62	2.60	
	D4							(G)	
	D5								
23	NA D1								
	FCL D2	2.6	0.480	12.4	7.3				
	CLA D3	2.8	0.960	12.4	7.3	1.92	28.99	3.83	
	D4							(G)	
	D5								
24	NA D1								
	FCL D2	2.8	0.480	13.6	7.6				
	CLA D3	2.7	0.960	13.6	7.5	1.95	33.63	3.90	
	D4							(G)	
	D5								

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>h</sup>
25	NA D1								
	FCL D2	0.0	0.480	10.8	7.8				
	CLA D3	2.1	0.960	10.8	7.7	0.80	1.63	0.81	0.75
	D4							(V)	
	D5								
26	NA D1								
	FCL D2	3.0	0.480	10.3	7.3				
	CLA D3	3.2	0.960	10.3	7.3	1.94	28.90	3.88	
	D4							(G)	
	D5								
27	NA D1								
	FCL D2	2.6	0.260	11.4	7.6				
	CLA D3	2.8	0.520	11.4	7.5	3.21	49.94	6.42	
	D4							(G)	
	D5								
28	NA D1								
	FCL D2	ND	0.480	12.6	7.6				
	CLA D3	2.7	0.960	12.6	7.7	1.11*	2.37*	1.18	
	D4							(V)	
	D5								
29	D1								
	D2								
	D3								
	D4								
	D5								
30	D1								
	D2								
	D3								
	D4								
	D5								
31	D1								
	D2								
	D3								
	D4								
	D5								
						Max	19.21	442.55	
						Min	0.75	1.63	
						Avg	3.26	61.43	
						SD	4.71	109.67	

NOTES: = ONLY use the "Time=" column to show the length of time that the total inactivation ratio was less than 1.00.  
\* Not representative of total log inactivation(s) and/or total inactivation ratio for all disinfection zones; Excluded from statistical summary calculations.

SUBMITTED BY: Hardy Worker Certificate No. WS1234567, BS and Grade: WS1234567, BS Date: March 9, 2011

**MONTHLY TOTAL ORGANIC CARBON REMOVAL REPORT (TOCMOR)**  
**FOR SURFACE WATER OR GROUND WATER UNDER THE INFLUENCE OF SURFACE WATER SYSTEMS**

PUBLIC WATER SYSTEM NAME: Aguaville PWS  
 PWS ID No.: 1234567

PLANT NAME OR NUMBER: Schwartz Plant  
 Month: February Year: 2011

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		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	
1	2/8	136	4.20	3.30	21.4	25	0.86	22.7	0.9	0.94
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
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22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Avg		136.00	4.20	3.30	21.43		0.86		0.9	0.94
Max		136.00	4.20	3.30	21.43		0.86		0.9	0.94
Min		136.00	4.20	3.30	21.43		0.86		0.9	0.94

**TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY**

TOC Summary: Don't forget to include a copy of your P.7-TOC ACC worksheet with your report.					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
136	4.20	3.30	21.4	6 RAA	1.00

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: Hardy Worker

Certificate No. and Grade: WS1234567, BS

Date: March 9, 2011

**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

**TOC ALTERNATIVE COMPLIANCE CRITERIA REPORT**  
FOR SURFACE WATER OR GROUND WATER UNDER THE INFLUENCE OF SURFACE WATER SYSTEMS

PUBLIC WATER SYSTEM NAME: Aguaville PWS  
PWS ID No.: 1234567

PLANT NAME OR NUMBER: Schwartz Plant  
Month: February Year: 2011

This Alternative Compliance Criteria (ACC) Report is being submitted to request the following ACC: (check one)  
(Before you can begin entering data, you must put an "X" in the box that shows the number of the Alternative Compliance Criteria you are applying for.)

#1  #2  #3  #4  #5  #6  #7  #8

ACC #1

ACC #2

ACC #3

ACC #4

ACC #5

ACC #6

Treated water SUVA less than or equal to 2.0 L/mg-m?  
(either based on most recent month's data OR calculated quarterly as a running annual average)

(Treated water SUVA is the ultraviolet light absorption at 254 nanometers divided by the dissolved organic carbon concentration in the finished water before any disinfection of any kind, or measured using a finished water SUVA jar test. Measure monthly.)

Treated water SUVA measured:  In Plant  By Finished Water SUVA Jar Test. (Be sure to sign the certification)

I certify that an oxidant was used upstream of the Treated Water TOC monitoring point during the period for which treated water SUVA data is reported.

Certified Operators Signature / Certificate Number / Date

Current Month SUVA	Month/Year	Q1			Q2			Q3			Q4		
		01/2010	02/2010	03/2010	04/2010	05/2010	06/2010	07/2010	08/2010	09/2010	10/2010	11/2010	12/2010
	Monthly Treated Water SUVA	2.02	2.00	2.12	1.90	1.98	2.01	1.90	1.94	1.91	2.06	1.98	1.89
	Quarterly Average			2.05			1.96			1.88			1.92
	RAA												1.97

ACC #7

ACC #8

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: Hardy Worker Certificate No. and Grade: WS1234567, BS Date: March 9, 2011

# STEP 2 JAR TEST REPORT

FOR SURFACE WATER OR GROUND WATER UNDER THE INFLUENCE OF SURFACE WATER SYSTEMS

PUBLIC WATER  
 SYSTEM NAME: Aguaville PWS  
 PWS ID No.: 1234567

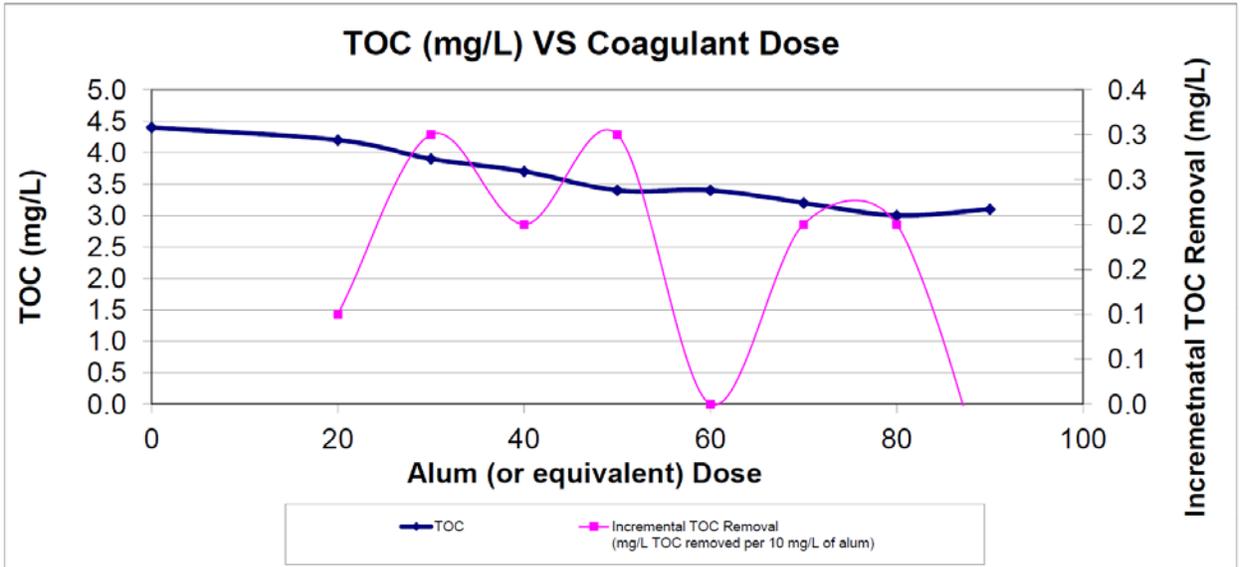
PLANT NAME  
 OR NUMBER: Schwartz Plant  
 DATE OF JAR TEST: December 13, 2010

PLANT CONDITIONS								
RAW WATER SOURCE(s)	COAGULANT		COAGULANT AID		FLOC AID		pH ADJUSTMENT	
	Type	Dose (mg/L)	Type	Dose (mg/L)	Type	Dose (mg/L)	Type	Dose (mg/L)
Allen R. Gammage Reservoir and Lake Schwartz	Alum	45.00	Cationic polymer	0.50	NA		NA	

STEP 2 JAR TEST PARAMETERS									
COAGULANT		BASE		JAR SIZE	JAR TEST CONDITIONS				
Type	Stock Solution Concentration (g/L)	Type	Stock Solution Concentration (g/L)	Volume (liters)	Rapid Mix		Flocculation		Settling
					Speed (rpm)	Duration (minutes)	Speed (rpm)	Duration (minutes)	Duration (minutes)
Alum	2	NA		2	325.0	0.5	50, 30, 15	3.0, 3.0, 3.0	20.0

JAR TEST RESULTS										
Jar No.	COAGULANT		BASE		Alkalinity (mg/L as CaCO <sub>3</sub> )	pH	TOC (mg/L)	Incremental TOC Removal (mg/L TOC removed per 10 mg/L of alum)	Cumulative TOC Removal (%)	
	Dose (Alum eq.) (mg/L)	Volume (mL)	Dose (mg/L)	Volume (mL)						
RAW	0				144	7.6	4.4			
1	20	2.00			Target pH (based on raw water alkalinity)	7.5	4.2	0.1	4.5	
2	30	3.00				7.5	3.9	0.3	11.4	
3	40	4.00				7.4	3.7	0.2	15.9	
4	50	5.00				7.4	3.4	0.3	22.7	
5	60	6.00				7.3	3.4	0.0	22.7	
6	70	7.00				7.3	3.2	0.2	27.3	
7	80	8.00				7.1	3.0	0.2	31.8	
8	90	9.00				7.0	6.9	3.1	-0.1	bad data point
9										
10										
11										
12										

Has the TCEQ approved this source as "Not Amenable" to Treatment even though Target pH was not reached? If "yes", provide the date of the TCEQ letter or e-mail.		TOC, % Removal at Apparent PODR:	More than 1 PODR
		More than one PODR found; please enter correct PODR value:	22.7%



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: Hardy Worker

Certificate No. and Grade: WS1234567, BS