

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: City Of Corsicana

PLANT NAME OR NUMBER: Lake Halbert WTP

PWS ID No.: 1750002

Connections: 10,876

Month: July Year: 2013

Population: 23,770

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	2.361	2.248	31	106								0.07	0.07	0.07	0.07	0.07	0.08	3.2	
2	2.335	2.231	34	106								0.08	0.08	0.07	0.07	0.08	0.08	3.3	
3	2.198	2.198	38	105								0.08	0.08	0.08	0.07	0.08	0.07	3.5	
4	2.150	2.142	37	104								0.08	0.07	0.07	0.06	0.08	0.06	3.4	
5	1.521	1.521	43	103		0.3						x	x	0.07	0.08	0.08	0.08	2.8	
6	2.198	1.983	42	103								x	x	0.09	0.09	0.09	0.10	2.8	
7	2.522	2.522	49	104								x	x	0.10	0.09	0.08	0.07	2.7	
8	2.241	2.037	20	97								0.08	0.08	x	0.08	0.07	0.07	3.2	
9	2.300	1.943	8	99								0.07	0.07	0.09	0.07	0.06	0.06	3.2	
10	3.070	2.877	9	95								0.07	0.07	0.07	0.06	0.06	0.08	3.5	
11	3.700	3.504	4	97								0.07	0.06	0.06	0.06	0.06	0.07	3.1	
12	2.670	2.420	3	96								0.06	0.06	0.07	0.07	0.06	0.06	3.1	
13	1.870	1.829	2	88								x	x	0.08	0.07	0.07	0.06	3.1	
14	2.580	2.333	3	88								x	x	0.07	0.07	0.06	0.07	3.0	
15	2.053	2.053	2	88								0.07	0.07	0.07	0.06	0.06	0.06	3.2	
16	1.120	1.116	2	89								0.06	0.06	0.06	0.07	x	x	3.3	
17	1.380	1.074	2	89								x	x	x	0.07	0.06	0.05	3.0	
18	1.680	1.552	2	89								0.06	0.05	0.05	0.06	0.05	0.06	3.2	
19	1.150	1.066	3	93								x	x	0.07	0.08	0.06	0.06	3.0	
20	1.360	1.192	3	89								x	x	0.07	0.07	0.07	0.07	3.1	
21	1.360	1.255	29	93								x	x	0.07	0.09	0.08	0.07	3.0	
22	1.875	1.875	29	92								0.08	0.07	0.07	0.08	0.07	0.07	3.5	
23	2.785	2.785	30	92								0.08	0.09	0.08	x	0.07	0.07	3.4	
24	1.800	1.776	34	93								0.07	0.07	0.07	0.08	0.07	0.08	3.1	
25	1.940	1.897	43	95								0.07	0.06	0.06	0.08	0.07	0.07	3.7	
26	1.780	1.677	29	88								x	x	x	0.12	0.10	0.11	2.9	
27	1.572	1.572	41	90								x	x	0.34	0.18	0.12	0.08	3.1	
28	1.344	1.344	41	90								x	x	0.11	0.10	0.07	0.07	3.2	
29	1.903	1.903	41	90								0.08	0.08	0.08	0.07	0.06	0.06	3.3	
30	1.868	1.868	29	89								0.07	0.07	0.07	0.09	0.07	0.06	3.3	
31	2.130	1.877	7	90								0.06	0.06	0.05	0.09	0.06	0.06	3.7	
Total	62.816	59.670																	
Avg	2.026	1.925																	
Max	3.700	3.504																	
Min	1.120	1.066																	

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: _____ Certificate No. and Grade: WO0012234, A Date: August 1, 2013

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: City Of Corsicana

PLANT NAME
OR NUMBER: Lake Halbert WTP

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.: 1750002
Report for
the Month of: July 2013

Operator's Signature: _____
Certificate No. & Grade: WO0012234, A Date: August 1, 2013

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	<u>156</u>	Number of 4-hour periods when plant was off-line:	<u>30</u>	
Number of readings above 0.10 NTU:	<u>6</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>0.34</u> NTU	Average turbidity value:	<u>0.07</u> NTU
	Minimum turbidity reading:	<u>0.05</u> NTU	Standard deviation:	<u>0.026</u> NTU
	CFE 95 th percentile value:	<u>0.10</u> NTU	IFE 95 th percentile:	<u>0.140</u> NTU
Number of days with a low CT for no more than 4.0 consecutive hours:	<u>0</u>	Average log inactivation for Giardia:	<u>3.88</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>93.37</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>0</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>61</u>	(at least 31 required) (8)	
Average disinfectant residual value:	<u>2.43</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 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.

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.)

Filter Data Page

PUBLIC WATER
SYSTEM NAME: City Of Corsicana
PWS ID No.: 1750002

PLANT NAME
OR NUMBER: Lake Halbert WTP
Month: July Year: 2013

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	0.10	x	0.06	x	0.14	0.14	0.12	x												
2	0.08	x	0.10	0.10	0.13	x	0.10	x												
3	x	x	0.10	x	0.09	x	0.14	x												
4	x	x	0.06	x	0.09	x	0.10	x												
5	0.11	0.11	0.06	0.06	0.09	0.09	0.09	0.08												
6	0.08	0.08	0.11	0.11	0.14	0.13	0.08	0.04												
7	0.08	0.07	0.10	0.10	0.13	0.12	0.09	0.07												
8	0.09	0.09	0.09	0.09	0.13	0.13	0.08	0.07												
9	0.08	x	0.08	0.08	0.07	x	0.11	0.11												
10	0.08	x	0.10	x	0.14	0.14	0.11	x												
11	0.08	0.08	0.06	x	0.07	x	0.07	x												
12	0.07	x	0.06	0.06	0.07	x	0.05	x												
13	0.05	0.05	0.06	0.06	0.05	0.05	0.06	0.06												
14	0.09	0.09	0.06	0.06	0.09	0.09	0.07	0.06												
15	0.09	x	0.05	x	0.08	x	0.07	x												
16	0.06	x	0.04	x	0.07	x	x	x												
17	0.05	0.05	0.05	0.05	0.08	0.08	x	x												
18	0.04	x	0.04	x	0.06	x	0.09	0.08												
19	0.05	0.05	x	x	0.06	0.06	0.09	0.09												
20	0.06	0.06	0.07	0.07	0.09	0.09	0.09	0.08												
21	x	x	0.09	0.09	0.14	0.14	0.10	0.08												
22	x	x	0.11	x	0.13	x	0.14	x												
23	0.14	0.13	0.08	0.08	0.11	0.11	0.12	0.08												
24	0.11	x	0.07	x	0.10	x	0.16	x												
25	0.07	x	0.05	x	0.08	x	0.08	0.07												
26	0.06	0.06	0.14	0.12	0.19	0.18	0.09	0.05												
27	0.19	0.19	0.12	0.12	0.17	0.17	0.10	0.08												
28	0.11	0.11	x	x	0.12	0.12	0.08	0.05												
29	0.08	x	x	x	0.10	x	0.08	x												
30	0.07	0.07	x	x	0.09	0.09	0.07	0.07												
31	0.06	x	0.06	0.06	0.10	0.09	0.06	x												

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	0	0	0	0																
	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 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
	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: _____ Certificate No. and Grade: WO0012234, A Date: August 1, 2013

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: City Of Corsicana
PWS ID No.: 1750002

PLANT NAME OR NUMBER: Lake Halbert WTP
Month: July Year: 2013

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)	4.000	4.000	4.000			0.5		2.0	
T ₁₀ (minutes)	78.3	15.1	9.0						

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
1	NA D1								
	FCL D2	1.4	2.300	30.0	6.9				
	CLA D3	3.2	2.300	29.0	7.4	4.36	109.36	8.73	
	D4							(G)	
	D5								
2	NA D1								
	FCL D2	1.4	2.300	29.0	6.9				
	CLA D3	3.5	2.300	29.0	7.5	4.10	102.14	8.20	
	D4							(G)	
	D5								
3	NA D1								
	FCL D2	1.6	2.300	29.0	6.8				
	CLA D3	3.6	2.300	29.0	7.4	4.74	116.65	9.48	
	D4							(G)	
	D5								
4	NA D1								
	FCL D2	1.4	2.300	28.0	6.8				
	CLA D3	3.6	2.300	28.0	7.4	3.98	95.32	7.97	
	D4							(G)	
	D5								
5	NA D1								
	FCL D2	1.3	2.300	27.0	6.8				
	CLA D3	3.4	2.300	28.0	7.3	3.50	82.63	7.00	
	D4							(G)	
	D5								
6	NA D1								
	FCL D2	1.1	3.600	29.0	6.8				
	CLA D3	3.7	3.600	29.0	7.6	2.23	51.39	4.47	
	D4							(G)	
	D5								
7	NA D1								
	FCL D2	1.1	3.600	27.0	6.7				
	CLA D3	3.1	3.600	28.0	7.4	2.01	44.70	4.01	
	D4							(G)	
	D5								
8	NA D1								
	FCL D2	1.3	3.600	28.0	6.8				
	CLA D3	3.4	3.600	29.0	7.4	2.39	56.58	4.78	
	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=
9	NA D1								
	FCL D2	1.4	2.300	28.0	6.9				
	CLA D3	4.0	2.300	28.0	7.8	3.87	95.39	7.74	
	D4							(G)	
	D5								
10	NA D1								
	FCL D2	1.9	3.700	28.0	6.8				
	CLA D3	3.7	3.700	28.0	7.4	3.16	80.28	6.32	
	D4							(G)	
	D5								
11	NA D1								
	FCL D2	1.3	3.700	28.0	6.9				
	CLA D3	3.1	3.700	29.0	7.4	2.23	55.02	4.47	
	D4							(G)	
	D5								
12	NA D1								
	FCL D2	1.6	3.700	28.0	6.8				
	CLA D3	3.3	3.700	28.0	7.5	2.75	67.62	5.49	
	D4							(G)	
	D5								
13	NA D1								
	FCL D2	1.4	3.700	28.0	6.9				
	CLA D3	3.5	3.700	29.0	7.5	2.39	59.27	4.78	
	D4							(G)	
	D5								
14	NA D1								
	FCL D2	1.3	3.700	28.0	6.8				
	CLA D3	3.0	3.700	29.0	7.4	2.31	55.00	4.62	
	D4							(G)	
	D5								
15	NA D1								
	FCL D2	1.5	3.700	28.0	6.8				
	CLA D3	3.4	3.700	28.0	7.4	2.61	63.43	5.22	
	D4							(G)	
	D5								
16	NA D1								
	FCL D2	1.5	1.800	28.0	6.8				
	CLA D3	3.6	1.800	28.0	7.8	5.38	130.43	10.76	
	D4							(G)	
	D5								

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

SUBMITTED BY: _____ Certificate No. and Grade: WO0012234, A Date: August 1, 2013

MONTHLY TOTAL ORGANIC CARBON REMOVAL REPORT (TOCMOR)

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

PUBLIC WATER SYSTEM NAME: City Of Corsicana
 PWS ID No.: 1750002
 Type of treatment: Conventional Unconventional explain: _____

PLANT NAME OR NUMBER: Lake Halbert WTP
 Month: July Year: 2013

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	7/2	108	5.77	4.49	22.2	35	0.63			0.63
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		108.00	5.77	4.49	22.18		0.63			0.63
Max		108.00	5.77	4.49	22.18		0.63			0.63
Min		108.00	5.77	4.49	22.18		0.63			0.63

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	
108	5.77	4.49	22.2	5 Mo. Avg	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: _____

Certificate No. and Grade: WO0012234, A

Date: August 1, 2013

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: City Of Corsicana
 PWS ID No.: 1750002

PLANT NAME OR NUMBER: Lake Halbert WTP
 Month: July Year: 2013

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	Source 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) (Source water SUVA is the dissolved organic carbon concentration divided by the ultraviolet light absorption at 254 nanometers in the source water before any treatment of any kind. Measure monthly.)
	Current Month SUVA
	1.68

ACC #6

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: _____ Certificate No. and Grade: WO0012234, A Date: August 1, 2013

STEP 2 JAR TEST REPORT

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

PUBLIC WATER SYSTEM NAME: City Of Corsicana
 PWS ID No.: 1750002

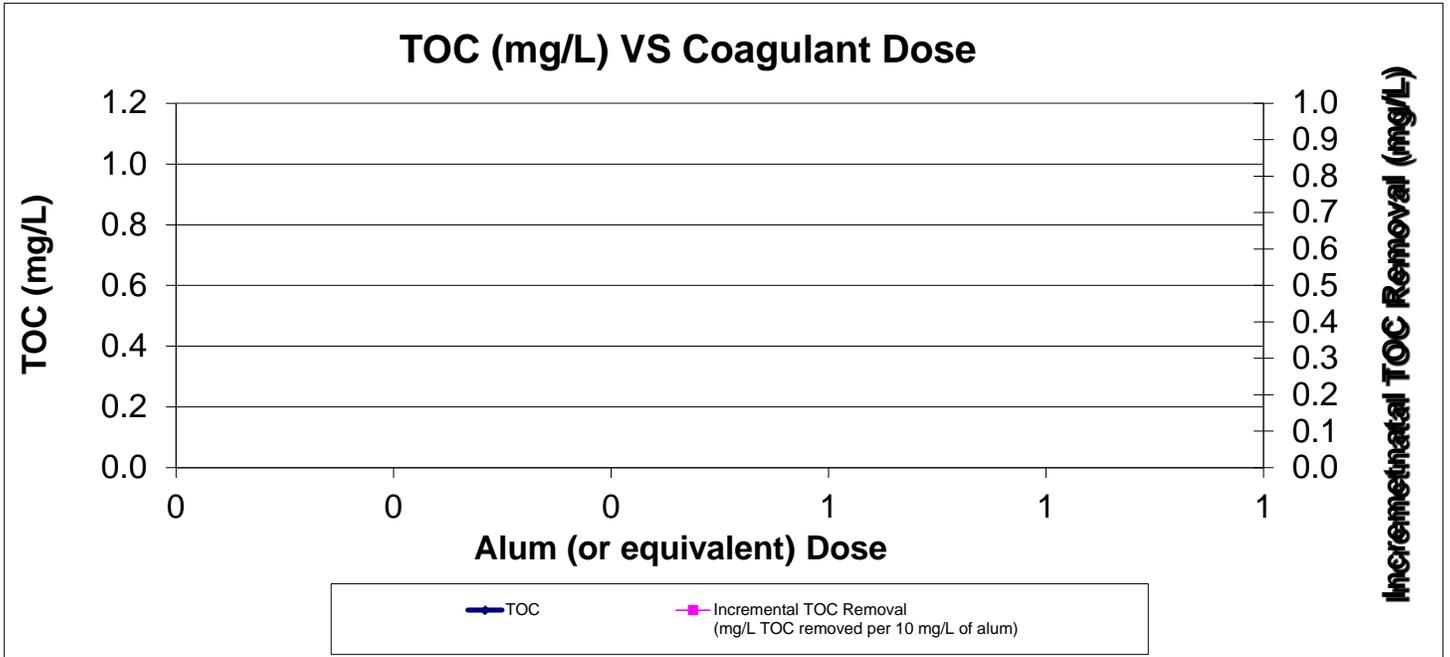
PLANT NAME OR NUMBER: Lake Halbert WTP
 DATE OF JAR TEST: _____

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)

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)

JAR TEST RESULTS									
Jar No.	COAGULANT		BASE		Alkalinity (mg/L as CaCO ₃)	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									
1									
2									
3									
4									
5					Target pH (based on raw water alkalinity)				
6									
7									
8									
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:
---	----------------------------------



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: WO0012234, A