

# 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:** Navarro Mills

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:** May 2011

**Operator's Signature:** [Signature]  
**Certificate No. & Grade:** WO0004220, A      **Date:** June 1, 2011

## TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	186	Number of 4-hour periods when plant was off-line:	0
Number of readings above 0.10 NTU:	86	Number of 4-hour periods when plant was on-line but turbidity data was not collected:	0
Number of readings above 0.3 NTU:	1	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:	0.5 % (1)		
<b>Statistical Summary</b>		Maximum turbidity reading:	0.37 NTU
		Minimum turbidity reading:	0.03 NTU
		CFE 95 <sup>th</sup> percentile value:	0.17 NTU
		Average turbidity value:	0.10 NTU
		Standard deviation:	0.054 NTU
		IFE 95 <sup>th</sup> percentile:	0.505 NTU
Number of days with a low CT for no more than 4.0 consecutive hours:	0	Average log inactivation for Giardia:	4.96
Number of days with a low CT for more than 4.0 consecutive hours:	0 (4)	Average log inactivation for viruses:	56.93
		Number of days when profiling data was not collected:	0
		Number of days when CT data was not collected:	0
Minimum disinfectant residual required leaving the plant:	0.5 mg/L, measured as Total Chlorine		
Number of days with a low residual for no more than 4.0 consecutive hours:	0		
Number of days with a low residual for more than 4.0 consecutive hours:	0 (5)	Number of days when disinfectant residual leaving the plant was not properly monitored:	0

## DISTRIBUTION SYSTEM

Minimum disinfectant residual required in distribution system:	0.5 mg/L, measured as Total Chlorine		
Total number of readings this month:	61	(at least 31 required)	(8)
Average disinfectant residual value:	2.42	Percentage of readings with a low residual this month:	0.0 % (6A)
Number of readings with a low residual:	0		
Number of readings with no detectable residual:	0	Percentage of readings with a low residual last month:	0.0 % (6B)

## ADDITIONAL REPORTS & WORKSHEETS

The Page 1 Addendum (Public Notices) is not required because there were no treatment technique or monitoring/reporting violations reported.

Additional report(s) for individual filter monitoring required:       NONE       Filter Profile       Filter Assessment       CPE

Additional report(s) for individual filter monitoring submitted:       NONE       Filter Profile (9)       Filter Assessment (10)       CPE (11)

**SURFACE WATER MONTHLY OPERATING REPORT**  
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
WATER SUPPLY DIVISION/PUBLIC DRINKING WATER SECTION (MC-155)  
P.O. BOX 13087, AUSTIN, TEXAS 78711-3087

**SURFACE WATER MONTHLY OPERATING REPORT**  
**FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES**  
**OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)**  
*Turbidity Data Page*

PUBLIC WATER SYSTEM NAME: City of Corsicana

PLANT NAME OR NUMBER: Navarro Mills

PWS ID No.: 1750002

Connections: 10,836

Month: May Year: 2011

Population: 23,770

PERFORMANCE DATA																		
Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES		SETTLED WATER TURBIDITY (Mandatory Data)						FINISHED WATER QUALITY							
			NTU	Alk.	Basin No.						Turbidity						Residual	Time
					1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6		
1	4.230	4.578	26	125	0.2	0.2	0.2	0.2	0.2	0.2	0.05	0.05	0.04	0.04	0.04	0.04	2.6	
2	3.810	4.178	28	124	0.3	0.2	0.4	0.2	0.2	0.2	0.04	0.04	0.04	0.03	0.05	0.05	2.6	
3	4.140	4.463	30	124	0.2	0.2	0.3	0.2	0.2	0.2	0.05	0.05	0.04	0.04	0.04	0.04	2.6	
4	6.250	5.777	32	122	0.3	0.3	0.4	0.4	0.3	0.3	0.04	0.04	0.04	0.04	0.04	0.04	2.5	
5	7.270	6.094	31	125	0.3	0.3	0.4	0.5	0.3	0.3	0.05	0.05	0.05	0.04	0.05	0.05	2.5	
6	7.260	6.192	36	127	0.3	0.3	0.4	0.3	0.3	0.3	0.05	0.05	0.05	0.05	0.05	0.05	2.5	
7	7.150	6.759	30	125	0.2	0.3	0.3	0.3	0.2	0.2	0.05	0.05	0.05	0.05	0.05	0.05	2.7	
8	6.180	5.758	28	122	0.4	0.4	0.5	0.4	0.4	0.3	0.06	0.06	0.05	0.05	0.06	0.06	2.7	
9	4.760	5.072	29	116	0.8	x	0.6	0.7	0.6	0.4	0.06	0.08	0.08	0.09	0.08	0.09	2.5	
10	6.130	5.666	24	118	0.4	0.5	0.4	0.6	0.5	0.5	0.12	0.12	0.12	0.16	0.17	0.15	2.6	
11	7.090	6.287	22	117	0.3	0.4	0.4	0.4	0.4	0.4	0.14	0.13	0.10	0.07	0.08	0.09	3.0	
12	5.660	5.162	21	118	0.5	0.5	0.7	0.6	0.6	0.6	0.11	0.12	0.14	0.16	0.16	0.16	2.7	
13	4.030	4.576	22	116	0.5	0.5	0.8	0.6	0.6	0.6	0.15	0.15	0.14	0.14	0.13	0.13	2.6	
14	4.080	4.861	22	117	0.5	0.5	0.9	0.6	0.6	0.6	0.13	0.13	0.13	0.13	0.13	0.13	2.6	
15	4.090	3.964	22	116	0.5	0.5	0.7	0.6	0.5	0.6	0.13	0.12	0.11	0.11	0.11	0.11	2.7	
16	5.820	5.554	25	116	0.5	0.5	0.8	0.6	0.6	0.5	0.11	0.11	0.09	0.09	0.10	0.10	2.7	
17	7.050	6.292	27	121	0.6	0.6	0.8	0.8	0.7	0.7	0.15	0.14	0.12	0.13	0.13	0.11	3.0	
18	6.190	5.511	31	119	0.7	0.8	0.9	0.9	0.9	0.9	0.13	0.13	0.15	0.16	0.18	0.18	2.9	
19	4.690	5.279	31	118	0.6	0.7	0.9	0.9	0.8	0.8	0.18	0.17	0.16	0.16	0.16	0.15	2.7	
20	4.770	4.647	33	118	0.7	0.7	1.2	1.1	0.8	0.9	0.14	0.14	0.15	0.16	0.17	0.17	2.8	
21	4.760	4.999	33	115	0.7	0.7	1.2	0.9	0.8	0.8	0.17	0.16	0.16	0.16	0.16	0.15	2.4	
22	4.780	4.585	29	116	0.7	0.8	1.0	0.9	0.8	0.8	0.15	0.15	0.13	0.13	0.15	0.15	2.2	
23	4.810	5.070	24	117	0.7	0.8	1.2	0.8	0.8	0.8	0.16	0.15	0.16	0.16	0.16	0.18	2.9	
24	7.090	5.261	19	116	x	x	2.2	1.0	1.4	1.1	0.21	0.28	0.37	0.32	0.27	0.17	2.7	
25	8.040	4.935	16	115	0.8	2.8	2.0	0.6	0.7	0.9	0.12	0.11	0.09	0.09	0.08	0.10	3.5	
26	8.230	5.989	25	116	0.8	0.9	0.9	x	x	0.6	0.08	0.09	0.11	0.09	0.09	0.07	3.3	
27	8.190	6.213	25	116	0.7	0.8	0.8	1.1	1.2	x	0.09	0.09	0.11	0.09	0.09	0.09	2.7	
28	7.710	6.034	23	114	0.5	0.5	0.6	0.6	0.6	0.6	0.07	0.07	0.07	0.07	0.06	0.06	2.6	
29	7.680	6.803	25	114	0.4	0.4	0.5	0.4	0.4	0.3	0.06	0.06	0.06	0.06	0.06	0.06	2.5	
30	7.640	6.782	28	113	0.4	0.4	0.5	0.5	0.5	0.4	0.06	0.06	0.06	0.06	0.06	0.05	2.5	
31	7.600	6.385	29	113	0.4	0.4	0.5	0.5	0.4	0.4	0.07	0.07	0.06	0.06	0.06	0.06	2.7	
Total	187.180	169.726																
Avg	6.038	5.475																
Max	8.230	6.803																
Min	3.810	3.964																

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: *Douglas W. [Signature]*

Certificate No. and Grade: WO0004220, A Date: June 1, 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

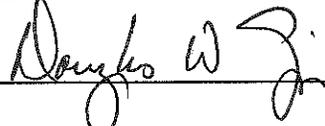
PUBLIC WATER  
 SYSTEM NAME: City of Corsicana  
 PWS ID No.: 1750002

PLANT NAME  
 OR NUMBER: Navarro Mills  
 Month: May 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	0.03	x	x	x	0.04	x	x	x	x	x	0.03	x								
2	0.03	x	x	x	0.04	x	x	x	x	x	0.03	x								
3	0.12	x	x	x	0.04	x	x	x	x	x	0.03	x								
4	0.05	x	x	x	0.04	x	0.09	0.05	0.12	0.06	0.03	x								
5	0.06	0.04	0.08	0.05	0.05	x	0.04	x	0.06	x	0.03	x								
6	0.04	x	0.05	x	x	x	0.04	x	0.04	x	x	x								
7	0.05	x	0.06	x	x	x	0.05	x	0.05	x	x	x								
8	0.08	x	0.26	x	0.11	0.10	0.08	x	0.94	0.11	0.10	0.09								
9	0.22	x	0.24	0.19	0.12	x	0.24	0.21	0.21	x	0.13	x								
10	0.23	x	0.26	x	x	x	0.26	x	0.22	x	x	x								
11	0.11	x	0.14	x	x	x	0.13	x	0.08	x	0.22	0.16								
12	0.12	x	0.15	x	0.27	0.22	0.15	x	x	x	0.18	x								
13	x	x	0.13	x	0.18	0.16	0.13	x	x	x	0.15	x								
14	x	x	x	x	0.17	x	0.12	x	x	x	0.12	x								
15	x	x	x	x	0.14	x	0.12	x	x	x	0.11	x								
16	0.28	0.16	x	x	0.11	x	0.14	x	0.28	0.18	0.13	x								
17	0.19	x	0.33	0.27	0.12	x	x	x	0.17	x	0.10	x								
18	0.16	x	0.27	x	0.12	x	0.36	0.27	0.14	x	x	x								
19	x	x	0.18	x	x	x	0.20	x	0.13	x	0.34	0.26								
20	x	x	0.16	x	x	x	0.17	x	x	x	0.26	x								
21	x	x	0.14	x	x	x	0.15	x	x	x	0.17	x								
22	x	x	0.14	x	0.34	0.28	0.15	x	x	x	0.16	x								
23	1.03	0.75	1.24	0.46	0.80	x	0.49	x	x	x	0.54	x								
24	0.74	x	0.61	x	0.40	x	x	x	x	x	0.26	x								
25	0.16	x	0.16	x	0.13	x	x	x	0.31	0.22	0.10	x								
26	0.19	x	0.18	x	0.14	x	x	x	0.26	x	0.10	x								
27	0.11	x	0.11	x	0.10	x	0.39	x	0.14	x	0.08	x								
28	0.06	x	0.07	x	x	x	x	x	0.08	x	x	x								
29	0.06	x	0.06	x	0.21	0.08	0.15	0.07	0.07	x	x	x								
30	0.08	x	x	x	0.09	x	0.08	x	0.08	x	x	x								
31	0.06	x	x	x	0.08	x	0.08	x	0.07	x	0.29	0.09								

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	1	0	0	0	0	0						
	Number of days with event(s) above 1.0 NTU this month	0	1	0	0	0	0						
	Number of days with event(s) above 1.0 NTU last month	0	0	0	0	0	0						
	Number of days with event(s) above 1.0 NTU two months ago	0	0	0	0	0	0						
	Total number of days with event(s) above 1.0 NTU in three months	0	1	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	N						N
Is the plant required to submit a Filter Profile Report?	Y	Y	N	N	N	N							
Is the plant required to submit a Filter Assessment Report?	N	N	N	N	N	N							
Is the plant required to submit a Request for Compliance CPE?											N		

SUBMITTED BY:  Certificate No. and Grade: WO0004220, A Date: June 1, 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: City of Corsicana  
PWS ID No.: 1750002

PLANT NAME OR NUMBER: Navarro Mills  
Month: May 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)	20.250	20.250	20.250			0.5		2.0	
T <sub>10</sub> (minutes)	109.1	13.0	100.0						

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	0.7	5.000	23.0	7.4				
	CLA D3	2.6	5.000	23.0	8.0	5.81	75.66	11.62	
	D4							(G)	
	D5								
2	NA D1								
	FCL D2	0.7	3.800	22.0	7.4				
	CLA D3	2.6	3.800	23.0	8.0	7.44	93.64	14.88	
	D4							(G)	
	D5								
3	NA D1								
	FCL D2	0.6	5.100	21.0	7.4				
	CLA D3	2.6	5.100	21.0	7.6	4.69	56.39	9.37	
	D4							(G)	
	D5								
4	NA D1								
	FCL D2	0.7	7.400	21.0	7.3				
	CLA D3	2.7	7.400	21.0	7.6	3.54	44.70	7.08	
	D4							(G)	
	D5								
5	NA D1								
	FCL D2	0.5	7.400	20.0	7.5				
	CLA D3	2.9	7.400	21.0	7.6	3.18	31.92	6.37	
	D4							(G)	
	D5								
6	NA D1								
	FCL D2	0.5	7.300	21.0	7.3				
	CLA D3	2.6	7.300	21.0	7.5	3.12	33.68	6.25	
	D4							(G)	
	D5								
7	NA D1								
	FCL D2	0.5	7.300	21.0	7.5				
	CLA D3	2.7	7.300	21.0	7.5	3.13	33.88	6.26	
	D4							(G)	
	D5								
8	NA D1								
	FCL D2	0.4	7.000	21.0	7.3				
	CLA D3	2.7	7.000	21.0	7.6	3.13	29.37	6.27	
	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	0.3	4.800	22.0	7.3				
	CLA D3	2.6	4.800	22.0	7.5	4.42	36.27	8.84	
	D4							(G)	
	D5								
10	NA D1								
	FCL D2	1.1	7.100	23.0	7.1				
	CLA D3	2.9	7.100	23.0	7.5	5.47	80.98	10.95	
	D4							(G)	
	D5								
11	NA D1								
	FCL D2	0.6	7.100	23.0	6.8				
	CLA D3	3.1	7.100	23.0	7.2	4.69	47.69	9.37	
	D4							(G)	
	D5								
12	NA D1								
	FCL D2	0.5	7.100	23.0	6.9				
	CLA D3	2.8	7.100	23.0	7.4	4.08	40.24	8.15	
	D4							(G)	
	D5								
13	NA D1								
	FCL D2	0.6	4.100	23.0	7.0				
	CLA D3	2.8	4.100	23.0	7.4	7.42	81.38	14.83	
	D4							(G)	
	D5								
14	NA D1								
	FCL D2	0.9	4.200	22.0	7.1				
	CLA D3	2.8	4.200	23.0	7.5	8.08	106.80	16.16	
	D4							(G)	
	D5								
15	NA D1								
	FCL D2	1.0	4.100	22.0	7.2				
	CLA D3	2.7	4.100	23.0	7.6	8.33	119.91	16.67	
	D4							(G)	
	D5								
16	NA D1								
	FCL D2	0.7	7.200	22.0	6.9				
	CLA D3	2.9	7.200	23.0	7.4	4.50	50.11	9.01	
	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: *Debra W. [Signature]*

Certificate No. and Grade: WO0004220, A

Date: June 1, 2011

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

FILE COPY

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

PLANT NAME OR NUMBER: Navarro Mills  
Month: May 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	5/3	135	3.92	2.96	24.5	15	1.63			1.63
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		135.00	3.92	2.96	24.49		1.63			1.63
Max		135.00	3.92	2.96	24.49		1.63			1.63
Min		135.00	3.92	2.96	24.49		1.63			1.63

### TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
135	3.92	2.96	24.5	NA	1.63

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: \_\_\_\_\_

*Wayne W. J.*

Certificate No. and Grade: WO0004220, A

Date: June 1, 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