Bush Brothers & Company #3
3304 Chestnut Hill Road
Dandridge, TN 37725
PWSID # 0004415
Daily Operational Report 2024

MAR 0 6 2024

	Wat. Treated,1000 Gal.		Temp.	Turb.	Finished Water Turbidity						Chlorine Residual		Chlorine, LBS.		Alkalinity		pH	
Date	Raw	Finished	Celsius	Raw	12-4	4-8	8-12	12-4	4-8	8-12	Raw	Effluent	Pre	Post	Raw	Finished	Raw	Finished
1-Feb	1497.7	"	9	5.58	0.12	0.13	0.13	0.12	0.13	0.13	0.2	2.1	1.9	38.1	177	170	7.6	7.5
2-Feb	1913.8	"	10	4.99	0.16	0.13	0.12	0.11	0.12	0.13	0.0	2.0	2.6	50.8	173	170	7.6	7.5
3-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5-Feb	1199.6	"	9	3.78	0.18	0.16	0.14	0.13	0.11	0.10	0.4	2.4	7.5	37.1	181	174	7.6	7.6
6-Feb	1350.0	"	9	3.47	0.11	0.14	0.14	0.12	0.11	0.11	0.4	2.4	5.5	42.5	182	174	7.6	7.6
7-Feb	1409.3	"	9	3.07	0.14	0.16	0.15	0.14	0.12	0.13	0.5	2.3	5.7	40.2	171	161	7.6	7.6
8-Feb	1364.9	"	9	2.65	0.11	0.09	0.07	0.10	0.10	0.12	0.3	2.4	5.8	38.9	172	164	7.6	7.6
9-Feb	1575.7	"	10	2.69	0.15	0.16	0.15	0.13	0.11	0.11	0.0	2.4	0.0	38.3	177	168	7.6	7.6
10-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19-Feb	1477.4	"	8	5.17	0.37	0.20	0.26	0.13	0.25	0.26	0.8	2.0	25.4	38.0	180	170	7.6	7.5
20-Feb	1514.6	"	9	5.23	0.22	0.18	0.21	0.19	0.19	0.24	1.0	2.2	27.6	38.5	184	174	7.6	7.5
21-Feb	1530.9	"	10	5.59	0.22	0.22	0.24	0.20	0.22	0.25	1.1	2.2	26.8	41.9	189	182	7.6	7.5
22-Feb	1477.5	"	10	4.75	0.22	0.24	0.24	0.21	0.22	0.19	1.2	2.2	28.2	39.7	189	179	7.6	7.5
23-Feb	2121.9	"	10	4.88	0.20	0.30	0.30	0.24	0.23	0.24	0.0	2.2	12.1	56.2	185	181	7.6	7.5
24-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
25-Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
26-Feb	1488.8	"	11	4.19	0.28	0.27	0.21	0.07	0.09	0.23	1.2	2.1	22.9	37.9	180	174	7.6	7.5
27-Feb	1238.6	"	12	4.35	0.16	0.13	0.11	0.11	0.11	0.11	0.0	2.1	1.8	32.1	183	174	7.6	7.6
28-Feb	1479.4	"	12	3.59	0.12	0.13	0.14	0.12	0.12	0.16	0.2	2.4	9.1	33.4	180	176	7.6	7.6
29-Feb	1554.0	"	11	3.18	0.15	0.15	0.14	0.13	0.11	0.13	0.2	1.9	8.8	37.1	184	181	7.6	7.6
Total	24194.1	"	158	67.16	2.91	2.79	2.75	2.25	2.34	2.64	7.5	35.3	191.7	640.7	2887	2772	121.6	120.8
Avg.	1512.1	"	10	4.20	0.18	0.17	0.17	0.14	0.15	0.17	0.5	2.2	12.0	40.0	180	173	7.6	7.6
Max.	2121.9	"	12	5.59	0.37	0.30	0.30	0.24	0.25	0.26	1.2	2.4	28.2	56.2	189	182	7.6	7.6
Min.	1199.6	"	8	2.65	0.11	0.09	0.07	0.07	0.09	0.10	0.0	1.9	0.0	32.1	171	161	7.6	7.5

***Non-operational date.**

Daniel Fullington

Daniel Fullington WT-2

Bush Brothers & Co. #3 Water System
PWSID # 0004415
Dandridge, TN 37725
DISINFECTION PROFILE

MAR 0 6 2024

2024

Enter Baffling Factor for Stage 1: 0.70
Enter Baffling Factor for Stage 2: 1.00

Feb-24

Sample Date	Treatment Stage	Disinfectant	Residual Conc. (mg/L)	pH	Temp. (Celsius)	Peak Flow (GPM)	Vol. Min. (gal)	TDT (min)	T10 (min)	CT calc	CT Req	IR	Total IR
2/1/2024	1. First sequence	Free Chlorine	0.20	7.60	9.0	1,963	56,000	28.5	20.0	4.0	46.1	0.09	
	2. Second sequence	Free Chlorine	2.10	7.50	9.0	57	56,000	982.5	982.5	2,063.2	54.1	38.14	38.23
2/2/2024	1. First sequence	Free Chlorine	0.00	7.60	10.0	2,137	56,000	26.2	18.3	0.0	0.0	#DIV/0!	
	2. Second sequence	Free Chlorine	2.00	7.50	10.0	75	56,000	746.7	746.7	1,493.3	50.1	29.81	29.81
2/5/2024	1. First sequence	Free Chlorine	0.40	7.60	9.0	1,557	56,000	36.0	25.2	10.1	46.1	0.22	
	2. Second sequence	Free Chlorine	2.40	7.60	9.0	95	56,000	589.5	589.5	1,414.7	57.9	24.43	24.65
2/6/2024	1. First sequence	Free Chlorine	0.40	7.60	9.0	1,889	56,000	29.6	20.8	8.3	46.1	0.18	
	2. Second sequence	Free Chlorine	2.40	7.60	9.0	65	56,000	861.5	861.5	2,067.7	57.9	35.71	35.89
2/7/2024	1. First sequence	Free Chlorine	0.50	7.60	9.0	1,967	56,000	28.5	19.9	10.0	46.7	0.21	
	2. Second sequence	Free Chlorine	2.30	7.60	9.0	58	56,000	965.5	965.5	2,220.7	57.4	38.69	38.90
2/8/2024	1. First sequence	Free Chlorine	0.30	7.60	9.0	1,879	56,000	29.8	20.9	6.3	46.1	0.14	
	2. Second sequence	Free Chlorine	2.40	7.60	9.0	55	56,000	1,018.2	1,018.2	2,443.6	58.0	42.13	42.27
2/9/2024	1. First sequence	Free Chlorine	0.00	7.60	10.0	1,959	56,000	28.6	20.0	0.0	0.0	#DIV/0!	
	2. Second sequence	Free Chlorine	2.40	7.60	10.0	56	56,000	1,000.0	1,000.0	2,400.0	54.3	44.20	44.20
2/19/2024	1. First sequence	Free Chlorine	0.80	7.60	8.0	2,149	56,000	26.1	18.2	14.6	51.5	0.28	
	2. Second sequence	Free Chlorine	2.00	7.50	8.0	100	56,000	560.0	560.0	1,120.0	56.8	19.72	20.00
2/20/2024	1. First sequence	Free Chlorine	1.00	7.60	9.0	1,984	56,000	28.2	19.8	19.8	49.6	0.40	
	2. Second sequence	Free Chlorine	2.20	7.50	9.0	116	56,000	482.8	482.8	1,062.1	54.6	19.45	19.85
2/21/2024	1. First sequence	Free Chlorine	1.10	7.60	10.0	2,056	56,000	27.2	19.1	21.0	42.0	0.50	
	2. Second sequence	Free Chlorine	2.20	7.50	10.0	64	56,000	875.0	875.0	1,925.0	51.2	37.60	38.10
2/22/2024	1. First sequence	Free Chlorine	1.20	7.60	10.0	1,788	56,000	31.3	21.9	26.3	47.6	0.55	
	2. Second sequence	Free Chlorine	2.20	7.50	10.0	64	56,000	875.0	875.0	1,925.0	51.2	37.60	38.15
2/23/2024	1. First sequence	Free Chlorine	0.00	7.60	10.0	1,948	56,000	28.7	20.1	0.0	0.0	#DIV/0!	
	2. Second sequence	Free Chlorine	2.20	7.50	10.0	63	56,000	888.9	888.9	1,955.6	51.2	38.19	38.19
2/26/2024	1. First sequence	Free Chlorine	1.20	7.60	11.0	2,102	56,000	26.6	18.6	22.4	44.3	0.51	
	2. Second sequence	Free Chlorine	2.10	7.50	11.0	63	56,000	888.9	888.9	1,866.7	47.1	39.63	40.14
2/27/2024	1. First sequence	Free Chlorine	0.00	7.60	12.0	1,926	56,000	29.1	20.4	0.0	0.0	#DIV/0!	
	2. Second sequence	Free Chlorine	2.10	7.60	12.0	75	56,000	746.7	746.7	1,568.0	45.3	34.61	34.61
2/28/2024	1. First sequence	Free Chlorine	0.20	7.60	12.0	2,041	56,000	27.4	19.2	3.8	37.1	0.10	
	2. Second sequence	Free Chlorine	2.40	7.60	12.0	67	56,000	835.8	835.8	2,006.0	46.7	42.95	43.05
2/29/2024	1. First sequence	Free Chlorine	0.20	7.60	11.0	2,058	56,000	27.2	19.0	3.8	40.1	0.10	
	2. Second sequence	Free Chlorine	1.90	7.60	11.0	60	56,000	933.3	933.3	1,773.3	47.9	37.02	37.12
	1. First sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	1. First sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	1. First sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	1. First sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	1. First sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	1. First sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine					56,000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	1. First sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
	1. First sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
	1. First sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
	1. First sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	
	2. Second sequence	Free Chlorine						#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
												Min.	19.85
												Max.	44.20

Daniel Fullington

Daniell Fullington WT-2

MAR 0 6 2024

DANDRIDGE WATER MANAGEMENT FACILITY BACTERIOLOGICAL ANALYSIS

PWSID: 0004415

Water System Name: Bush Brothers and Co.

Mailing Address: 3304 Chestnut Hill Rd.
Dandridge, TN 37725

Phone: (865) 599-3883 Fax:

Email: ematheny@bushbros.com

(Circle One) EMAIL

Sample Collector: Earl Matheny, Jr.

FOR LABORATORY USE ONLY

Laboratory ID#: 03104

Date Received: 2-22-24 By Whom: MB

Time Received: 10:04

Date Setup: 2-22-24 Analyst:

Time Setup: 1105

Date Read: 2-23-24 Analyst:

Time Read: 1124

	Sample(s) Over 30 Hrs. Old
	Leaked in Transit
	Insufficient Volume
	Volume Range Exceeded

Sample Reason: M Reportable to State? YES!

Sample Date: 2/22/24

	Sample Address	Time Collected	Cl_2 Residual	Sample Type	Sample Notations	Method Code - 9223 Contaminant Code: 3100 (Total) Neg	3100 (Total) Pos	3014 (E Coli) Neg	3014 (E Coli) Pos
1	A.J. General Store	8:22	1.1	D		X		X	
2									
3									
4									
5									
6									
7									
8									
9									
10									

Sample Reason: L = Leak M = Monthly R = Repair

Sample Type: S = Special D = Distribution N = New Line(s) RA = Repeat Above RS = Repeat Same RB = Repeat Below

Earl Matheny
Sample Collector

Lab Recipient

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES, COMPLIANCE AND ENFORCEMENT UNIT

DISINFECTANT MONITORING REPORT

MAR 0 6 2024

PWSID # 0 0 0 4 4 1 5

FACILITY ID

PUBLIC WATER SYSTEM NAME AND ADDRESS
Bush Brothers #3
3304 Chestnut Hill Rd.
Dandridge, TN 37725

SAMPLE PERIOD

START DATE (m m d d y y): 0 2 0 1 2 4

END DATE (m m d d y y): 0 2 2 9 2 4

I. SYSTEMS USING CHLORINE OR CHLORAMINES (1)

A. Distribution System Monitoring

Number of Samples Required (1)	Number of Samples Taken	Lowest Residual Measured (mg/L)	Average Residual Measured (mg/L)	Number of Samples below 0.2 mg/L	% of Samples 0.2 mg/L or higher
0 0 1	0 0 1	1 . 1 0	1 . 1 0	0 0 0	.

B. Entry Point Monitoring

Number of Days Residual Measurements Required (2)	Number of Days Residual Measurements Taken	Type of Monitoring Conducted: Grab	Type of Monitoring Conducted: Continuous	Lowest Residual Measured (mg/L)	Was the Continuous Chlorine Analyzer out of service more than 5 consecutive days while this facility was in operation? ("Y" for yes, or "N" for no)
1 6	1 6	✓		1 . 9 0	N

II. SYSTEMS USING CHLORINE DIOXIDE

A. Entry Point Monitoring

Number of Days Residual Measurements Required	Number of Days Residual Measurements Taken	Highest Residual Measured Entering the D.S. (mg/L)	Number of Days Residual Measured > MRDL	Number of Consecutive Days Residual Measured > MRDL
		.		

B. Distribution System Monitoring

1. Systems Not Utilizing Disinfection Booster Stations

Date E.P. Sample Exceeded MRDL	Date of Follow-Up Sampling (3)	Time of First Sample	Result (mg/L)	Time of Second Sample	Result (mg/L)	Time of Third Sample	Result (mg/L)
			.		.		.

2. Systems Utilizing Disinfection Booster Stations

Date E.P. Sample Exceeded MRDL	Date Follow-Up Sampling (4)	Sample Results (mg/L) at: Closest Customer	Sample Results (mg/L) at: Average Point	Sample Results (mg/L) at: Maximum Residence Time
		.	.	.

Notes:
(1) Disinfection residuals must be measured at the same frequency and locations for all total coliform samples that are taken. The number of required samples is the total number of routine and repeat total coliform samples taken during the reporting period.
(2) Each day of operation. Subpart H systems and True Ground Water Systems serving more than 3,330 persons must measure chlorine residuals continuously at the entry point to the distribution system. Grab sampling may be conducted at the rate specified in the regulations for systems serving less than 3,300
(3) For systems using chlorine dioxide, and not utilizing booster chlorination facilities in the distribution system, if an entry point sample exceeds the MRDL, a three-sample set of measurements must be taken the day after the exceedance at a point closest to the first customer at six-hour intervals. Analysis must be by Ion Chromatography
(4) For systems using chlorine dioxide, and which utilize booster chlorination facilities in the distribution system, if an entry point sample exceeds the MRDL, a three-sample set of measurements must be taken the day after the exceedance at the following locations: 1) a point closest to the first customer 2) a point reflecting the average residence time, and, 3) a point reflecting the maximum residence time. Analysis must be by Ion Chromatography

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

PREPARED BY Earl Matthews, Jr. DATE 3/4/24 APPROVED BY Terry Dishon DATE 3/4/24

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES, COMPLIANCE AND ENFORCMENT UNIT

INTERIM ENHANCED SURFACE WATER TREATMENT RULE
FILTER PERFORMANCE REPORT (1)

MAR 06 2024

PUBLIC WATER SYSTEM NAME AND ADDRESS
Bush Brothers #3
3304 Chestnut Hill Rd.
Dandridge, TN. 37725

PWSID #	ENTRY POINT	SAMPLE PERIOD START DATE	SAMPLE PERIOD END DATE	TOTAL HOURS PLANT OPERATED THIS MONTH	LABORATORY ID
0 0 0 4 4 1 5		0 2 0 1 2 4	0 2 2 9 2 4	3 8 4	0 0 0 5 3

REPORTABLE SAMPLES (2) REQUIRED	REPORTABLE SAMPLES (2) TAKEN	NUMBER OF REPORTABLE SAMPLES LESS THAN OR EQUAL TO THE LOWER NTU STANDARD (3)	PERCENT OF REPORTABLE SAMPLES LESS THAN OR EQUAL TO THE LOWER NTU STANDARD	NUMBER OF REPORTABLE SAMPLES EXCEEDING THE UPPER NTU STANDARD (4) (LIST DATES ON BACK)	HIGHEST FINISHED WATER TURBIDITY THIS MONTH
9 6	9 6	9 3	9 6 . 8 1	0 0 0	0 0 . 3 7 2

Notes:
(1) This form applies to filtration systems utilizing either a surface water supply or a source that has been designated groundwater under the direct influence of surface water.
(2) Systems utilizing cartridge filtration must at a minimum, measure turbidity once per day while treating water. Systems required to measure and record finished water turbidity every 4 hours that the plant is in operation, shall report the highest value measured during each 4-hour period. Systems utilizing continuous monitoring turbidimeters shall report the highest recorded value for every 4 hour period.
(3) NTU standards vary depending on the type of filtration treatment provided, and include a lower limit that must be met in 95% of the reportable samples, and an upper limit that cannot be exceeded without receiving a treatment technique violation. Use the lower NTU standard applicable to this facility for this calculation.
(4) Indicate the number of reportable samples that exceeded the upper NTU standard. On the back of this form, indicate the dates when a sample exceeded the upper NTU standard, and the date the state was notified of the exceedance.

	Y or N
Did this facility meet the CT requirements for each day it was in operation?	Y

A. FOR ALL FILTERS AT THIS FACILITY

	Y or N
1. Was turbidity monitored continuously and the results recorded for each filter effluent line?	Y
2. If the answer to question number 1 is no, was grab sampling conducted for every 4 hours the continuous monitor was out of service?	
3. If the answer to question number 2 is yes, was grab sampling conducted for more than 5 consecutive days on any individual filter?	

B. FOR ANY FILTER AT THIS FACILITY (5)

Were any 2 consecutive filter effluent measurements taken 15 minutes apart:	Y or N	Filter Numbers (maximum of four filters)
1. Greater than 0.5 NTU after the first 4 hours of operation?	N	
2. Greater than 1.0 NTU?	N	
3. Greater than 1.0 NTU in each of 3 consecutive months?	N	
4. Greater than 2.0 NTU in two consecutive months?	N	

Note:
(5) If this facility answered "Yes" to any question listed in Section B. above, then the system must submit a "Monthly Turbidity Exceedance Report" (CN-1196) for the individual filter that met at least one of the conditions listed.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

PREPARED BY: Earl Matheny, Jr. DATE: 3/4/24 PHONE: (865) 509-2361 APPROVED BY: Tony Dodson DATE: 3/4/24 PHONE: (865) 776-4804

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER SUPPLY
L & C TOWER, 6TH FLOOR
401 CHURCH STREET
NASHVILLE, TN 37243-1549

MAR 0 6 2024

WATER PUMPAGE DATA REPORT

PWSID: TN000441 5 **Month:** February **Year:** 2024

Water System Name: Bush Brothers #3
Address: 3304 Chestnut Hill Rd
City/State/Zip: Dandridge, TN 37725

	Source Name	Source Types*	Emerg.	Monthly Average	Maximum Day
1.	Springs	S (G) P	E	000.3562	001.1232
2.	Whaley Wells	S (G) P	E	000.5785	000.7200
3.	AJ Well	S (G) P	E	000.1092	000.1440
4.	Dickey Rd Wells	S (G) P	E		
5.	#4 Warehouse Well	S (G) P	E		
6.	Old office Well	S (G) P	E		
7.	Lake Wells	S (G) P	E		
8.	Cornhusker Well	S (G) P	E		
9.	Sevierville, Water	S G (P)	E	000.0223	000.2160
10.		S G P	E		

*SOURCE TYPE KEY: S=Surface Water, G=Ground Water, P=Purchased Water, E=Emergency Source

Print Name: Earl Matheny, Jr.

Signature: Earl Matheny, Jr.

Phone: (865) 509-2361

E-mail: ematheny@bushbros.com

Report water data in MGD as examples below:
1,900 gallons = 0.0019 MGD
15,255 gallons = 0.0153 MGD
154,427 gallons = 0.1544 MGD
Each source must report monthly. If there is no pumpage or purchase, still list all sources. No pumpage =0.0000 MGD. Keep sources in the same numerical order.
* Circle source type (S, G, P) and Circle (E) if it is an emergency connection.