

Town of Holbrook
Office of Joint Superintendent
(781) 767-1800

RANDOLPH-HOLBROOK JOINT WATER BOARD

50 North Franklin Street
Holbrook, MA 02343



Town of Randolph

December 14, 2021

Commonwealth of Massachusetts
Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02374

Monthly Reports Filtered System Forms
Forms F, G, I, J, TT
Analysis for TOC, DOC
Chemical Addition Reports
DBPR Compliance Report
November, 2021 Randolph/Holbrook
Joint Water System, PWS #424001

Gentlemen:

Enclosed please find all reports as referenced above for the month of November, 2021. Should there be any questions, please do not hesitate to call me.

Sincerely,

William Cookerly
Chief Plant Operator

Enclosures

Cc: Board of Health Holbrook
Board of Health Randolph
Brian Howard, Town Manager, Randolph
Ryan Allgrove, EPG



Compliance Determination for Filtered Systems - Monthly Report

I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH
Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period -> Month: NOVEMBER Year: 2021

II. TURBIDITY PERFORMANCE CRITERIA:

1. Monthly Turbidity (95%) NTU Limit - The turbidity level of a system's filtered water must be less than or equal to the Monthly Turbidity NTU Limit in at least 95% of the measurements taken each month for the filtration technology used, otherwise SWTR TT Violation (Tier 2).
180 = A Total # of filtered water turbidity measurements for month (SWTR - Form F)
180 = B Total # of filtered water turbidity measurements less than or equal to the specified limits for the filtration technology used. (SWTR - Form F)
100 = (B / A) x 100 The percentage of turbidity measurements meeting the Monthly Turbidity 95% NTU Limit.
2. Max Day NTU Limit - The turbidity level of a system's filtered water must at no time exceed the Max Day NTU Limit for the filtration technology used, otherwise SWTR TT Violation (Tier 2).
Record the date and turbidity value for any measurements exceeding the Max Day NTU. Check box [X] if "None"

III. DISINFECTION PERFORMANCE CRITERIA:

1. Point-of-Entry Minimum Disinfectant Residual Criteria - Residual Disinfectant concentration cannot be < 0.2 mg/L for more than 4 hours. SWTR TT Violation (Tier 2).
Minimum Disinfectant Residual at Point-of-Entry to Distribution System:
Table with columns: Day, Cl2 mg/l, Day, Cl2 mg/l
Residual Measured: [X] Free Cl2, [] Total Cl2, [] Combined Cl2
If at any time the residual falls below 0.2 mg/l in the water entering the distribution system, the supplier of water must notify the Department as soon as possible, but no later than by the end of the next business day. The supplier of water also must notify the Department by the end of the next business day whether or not the residual was restored to at least 0.2 mg/l within four hours.

2. Distribution System Disinfectant Residual Criteria - Residual Disinfectant concentration (V) cannot be undetectable in greater than 5% of samples in a month, for any two consecutive months. SWTR TT Violation (Tier 2). Chlorine residuals must be measured at the same time and location as total coliform distribution routine & repeat samples. If no residual is detected, an HPC sample must be collected and analyzed.
Total # of HPC samples taken during month: 63 # HPC sites > 500/mL: 0 # HPC sites <= 500/mL: 63
70 = a # of sites where Cl2 residual measurements were made, whether a residual was detected or not (should be the same # of sites reported on your monthly DBPR Cl2 residual report)
0 = b # of sites HPC samples were analyzed instead of Cl2 residual measurements
0 = c # of sites where no Cl2 residual was detected and no HPC sample was analyzed
0 = d # of sites where no Cl2 residual was detected and HPC > 500 CFU/mL
0 = e # of sites where no Cl2 residual measurement was made and HPC > 500 CFU/mL
Water in the distribution system with a heterotrophic bacteria concentration (HPC) less than or equal to 500/mL, is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement. When analyzed, report HPC results on your monthly DEP Bacteriological Report.
V = (c+d+e) / (a+b) x 100 This Month % V = 0 Previous Month % V = 0 Is V > 5% for 2 months? [X] No

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true,

Authorized Signature: William Cookery, Chief Operator
12-14-2021



Massachusetts Department of Environmental Protection - Drinking Water Program
 TURBIDITY DATA SHEET FOR FILTERED SYSTEMS

SWTR
F

PWS INFORMATION

PWSID#: 1244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH
 Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: NOVEMBER Year: 2021

DATA REPORTING

Filtered Water Turbidity Measured: (check only one) Combined Filter Effluent Individual Filter Effluent Clearwell Plant Effluent

Filtration Technology: Conventional Direct Alternative Slow Sand Diatomaceous Earth
 Monthly Turbidity (95%) NTU Limit = 0.3 Max Day Turbidity NTU Limit = 1
 Monthly Turbidity (95%) NTU Limit = 1 Max Day Turbidity NTU Limit = 5

Day	Max Filtered Water Turbidity Result (NTU)	Number of Turbidity Measurements	Number of Turbidity Measurements Monthly (95%) NTU Limit	Number of Turbidity Measurements > Max Day NTU Limit
	.07	6	6	0
	.08	6	6	0
	.07	6	6	0
	.07	6	6	0
	.07	6	6	0
	.08	6	6	0
	.08	6	6	0
	.07	6	6	0
	.04	6	6	0
	.04	6	6	0
	.07	6	6	0
	.07	6	6	0
	.06	6	6	0
	.06	6	6	0
	.07	6	6	0
	.08	6	6	0
	.05	6	6	0
	.06	6	6	0
	.06	6	6	0
	.04	6	6	0
	.04	6	6	0
	.04	6	6	0
	.05	6	6	0
	.07	6	6	0
	.07	6	6	0
	.07	6	6	0
	.05	6	6	0
	.06	6	6	0
	.06	6	6	0
	.06	6	6	0
Totals:		180	180	0

May be used by systems serving less than 10,000 persons, subject to DEP approval.
 Enter the Maximum Filtered Water Turbidity Result recorded each day, at the 4th hour or other approved interval.
 Enter the Total # of Turbidity measurements taken for each day. Measurements must be taken at a minimum of 4-hour intervals (i.e. 6 readings per day).
 For continuous monitors count each 4-hour period as 1 measurement. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. If DEP approved, 15-minute readings (i.e. 96 readings per day) may be submitted. Filtered turbidity data must be kept on file for DEP review.
 Out of the # of turbidity measurements taken and recorded in the previous column, enter the number of turbidity measurements that were less than or equal to the Monthly (95%) NTU Limit for the filtration technology used.
 If at any time the filtered turbidity Max Day NTU Limit is exceeded, the DEP must be notified no later than the end of the next business day. For each exceedance, record the turbidity value(s) and date(s) on SWTR - Form G

PWS Authorized Signature: William Cook
 Date: 12-2-2021 Title: Chief Plant Operator



CT Determination for Filtered Systems

I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: Randolph-Hillbrook Joint Water PWS Town: Randolph
Treatment Plant Name: Randolph Water Plant Reporting Period -> Month: NOVEMBER Year: 2021
Disinfectant: Chlorine Gas/Volter Eff. Sequence of Application: 1st 2nd 3rd 4th 5 6th

II. DAILY REPORTING: All measurements taken during peak hourly flow.

Table with 10 columns: Day, Peak Hourly Flow (gpm), Disinfectant Concentration (mg/L), Disinfectant Contact Time (min.), CT calc (= C x T), pH, Water Temp (C), CT 99.9, Inactivation Ratio (CT calc / CT 99.9), Inactivation Ratio < 1.0. Rows 1-31 contain handwritten data.

- 1. Use a separate form for each disinfectant/sampling point. Enter disinfectant and sequence position, e.g. "ozone/1st" or "ClO2/3rd". If more than one disinfectant sampling point, you must also complete SWTR Form H and calculate the cumulative inactivation ratio SUM (CTcalc/CT99.9) to determine compliance.
2. Peak hourly flow means the highest pumpage hour during the day, not the absolute peak flow at any instant.
3. The residual disinfectant concentration(s) ("C") of the water before or at the first customer must be measured each day during peak hourly flow.
4. The disinfectant contact time(s) ("T") must be determined for each day during peak hourly flow. The time T used in calculating CT, is the time it takes the water, during peak hourly flow, to move between the point of disinfection application and the point at which the residual is measured.
5. If the system uses free chlorine, the pH of the disinfected water must be measured at least once per day at each chlorine residual disinfectant concentration sampling point during peak hourly flow.
6. The temperature of the disinfected water must be measured at least once per day at each residual disinfectant concentration sampling point during peak hourly flow.
7. Use Inactivation Tables at 310 CMR 22.20A Tables 1.1 - 1.6, 2.1 and/or 3.1
8. The inactivation ratio (CTcalc/CT99.9) is determined before or at the first customer during peak hourly flow and if the (CTcalc/CT99.9) is < 1.0, the 99.9% Giardia lamblia inactivation requirement has not been achieved.
9. More than one "Yes" response above may indicate a SWTR Treatment Technique violation (Tier 2).

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: [Signature] Date: 12-2-2021 Title: Chief Operator



Massachusetts Department of Environmental Protection – Drinking Water Program
CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

C-ADD

I. PWS Information - Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name ¹ :	RANDOLPH-HOLBROOK JW	Town ¹ :	RANDOLPH-Holbrook	PWSID ¹ :	424001
Treatment Plant Name ² :	RANDOLPH WATER PLANT	Treatment Plant ID# ² :	424001-01T	Reporting Period ² :	NOVEMBER 2021
				Month	Year

II. Chemical & Operational Information

Chemical Name ³ :	POLYALUMINUM CHLORIDE	Purchased Strength ³ :	1.0	Target Range/min ¹² :	>14
Manufacturer ³ :	HOLLAND COMPANY	Purchased Density (lbs/gal) ³ :	10.3	Target Dose ¹³ :	≤18
Product Name ³ :	PCH-180	Dilution Factor or Mix Ratio ¹⁰ :	NA	Alarm Setting (low) ¹⁴ :	NA
Reason for Adding Chemical ³ :	COAGULATION	NSF Approved (Y/N) ¹¹ :	Y	Alarm Setting (high) ¹⁴ :	NA
				Date of last anti-siphon valve inspection/replacement ¹⁵ :	NA

III. Daily Reporting Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water ¹⁴ <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) ¹⁶	Chemical Dosage ¹⁹ (mg/L)	Parameters Measured ¹⁷ , Results, Units and Method ²⁰ - (Grab or Continuous (A)nalyzer) ²¹			O&M Notes/Comments ²² PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume ¹⁷ (gal/day)	Weight ¹⁷ (lbs/day)			a. RAW Ph			
						DAILY AVE			
1	2.8	135	1,391	20	7.05	<input type="checkbox"/> G <input type="checkbox"/> A	<input type="checkbox"/> G <input type="checkbox"/> A	<input type="checkbox"/> G <input type="checkbox"/> A	
2	2.8	160	1,648	23	7.05				
3	2.8	140	1,442	20	6.95				
4	2.8	127	1,308	19	6.95				
5	2.8	153	1,576	22	6.90				
6	2.8	130	1,339	19	6.90				
7	2.8	130	1,339	19	6.95				
8	2.8	130	1,339	19	6.80				
9	2.7	115	1,185	17	6.90				
10	2.8	110	1,133	16	6.85				
11	2.8	122	1,257	18	6.90				
12	2.8	110	1,133	16	6.85				
13	2.8	135	1,391	20	6.90				
14	2.8	145	1,494	21	7.00				
15	2.9	130	1,339	18	6.95				
16	2.7	120	1,236	18	7.00				
17	2.8	114	1,174	17	7.00				
18	2.8	126	1,298	18	6.90				
19	2.9	120	1,236	17	6.90				
20	2.8	120	1,236	18	6.85				
21	2.7	118	1,215	18	6.85				
22	2.8	120	1,236	18	6.80				
23	2.7	115	1,185	17	6.90				
24	2.8	105	1,082	15	6.90				
25	2.8	112	1,154	16	6.80				
26	2.8	121	1,246	18	6.90				
27	2.8	114	1,174	17	6.95				
28	2.8	110	1,133	16	7.00				
29	3.0	130	1,339	18	7.05				
30	2.8	115	1,185	17	7.00				
31									

Total: _____ Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary²³:

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)²⁰:
 a. *Rand Ph Daily Average, Test Kit*

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.
 PWS Authorized Person / Signature & Date²⁴:
William Cookery 12-2-2021
 Print Name: *WILLIAM COOKERY* Title: *Chief Operator*



Massachusetts Department of Environmental Protection – Drinking Water Program
CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

C-ADD

I. PWS Information Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name ¹ :	RANDOLPH-HOLBROOK JOINT WATER	Town ¹ :	RANDOLPH-HOLBROOK	PWSID ¹ :	424001
Treatment Plant Name ² :	RANDOLPH WATER PLANT	Treatment Plant ID# ² :	424001-DIT	Reporting Period ³ :	NOVEMBER 2021
				Month:	NOVEMBER
				Year:	2021

II. Chemical & Operational Information

Chemical Name ⁴ :	CHLORINE	Purchased Strength ⁵ :	1.0	Target Range/min ¹² :	0.20
Manufacturer ⁵ :	AXIAL, LLC	Purchased Density (lbs/gal) ⁶ :	12.3	Target Dose ¹³ :	NA
Product Name ⁶ :	CHLORINE	Dilution Factor or Mix Ratio ¹⁰ :	NA	Alarm Setting (low) ¹⁴ :	1.0
Reason for Adding Chemical ⁷ :	DISINFECTANT	NSF Approved (Y/N) ¹¹ :	Y	Alarm Setting (high) ¹⁴ :	3.0
		Date of last anti-siphon valve inspection/replacement ¹⁵ :			
		NA			

III. Daily Reporting Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water ¹⁶ <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) ¹⁸	Chemical Dosage ¹⁹ (mg/L)	Parameters Measured ²⁰ , Results, Units and Method ²⁰ - (G)rab or Continuous (A)nalyzer ²¹			O&M Notes/Comments ²² PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume ¹⁷ (gal/day)	Weight ¹⁷ (lbs/day)			a-FREE CL ₂ FINISHED DAILY AVG	b-FREE CL ₂ FINISHED DAILY PPM AVG	c	
1	2.8		95	4.1	2.28	1.99	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
2	2.8		95	4.1	2.40	1.96	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
3	2.8		87	3.7	2.29	1.89	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
4	2.8		86	3.7	2.39	2.12	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
5	2.8		85	3.6	2.42	2.30	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
6	2.8		96	4.1	2.35	1.76	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
7	2.8		91	3.9	2.22	1.69	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
8	2.8		95	4.1	2.25	1.97	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
9	2.7		83	3.7	2.18	1.73	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
10	2.8		81	3.5	2.18	1.91	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
11	2.8		83	3.6	2.16	1.86	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
12	2.8		81	3.5	2.25	2.04	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
13	2.8		81	3.5	2.13	54	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
14	2.8		82	3.5	2.21	1.78	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
15	2.9		84	3.5	2.14	1.81	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
16	2.7		82	3.6	2.18	1.76	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
17	2.8		82	3.9	2.11	1.64	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
18	2.8		97	4.2	2.29	2.02	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
19	2.9		99	4.1	2.34	2.10	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
20	2.8		98	4.2	2.25	1.88	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
21	2.7		82	3.6	2.05	1.82	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
22	2.8		80	3.4	2.10	1.83	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
23	2.7		76	3.4	2.12	1.92	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
24	2.8		78	3.3	2.09	1.69	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
25	2.8		89	3.8	2.34	1.88	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
26	2.8		90	3.9	2.21	1.79	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
27	2.8		95	4.1	2.11	1.84	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
28	2.8		94	4.0	2.06	1.61	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
29	3.0		94	3.8	2.20	1.83	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
30	2.8		93	4.0	2.13	1.84	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A	
31									
Total					Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary ²³ :				

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)²⁰:
 a. Daily average, Free Chlorine Finished Water, Grab Sample, Test Kit
 b. Daily average, Free Chlorine Finished Water, Grab Sample, Test Kit
 c.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.
 PWS Authorized Person - Signature & Date²⁴:
 William C. [Signature] 12-2-2021
 Print Name: William C. [Signature] Title: Chief Operator



I. PWS Information - Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name ¹ :	RANDOLPH-HOLBROOK JW	Town ¹ :	RANDOLPH-HOLBROOK	PWSID ¹ :	424001
Treatment Plant Name ² :	RANDOLPH WATER PLANT	Treatment Plant ID# ² :	4244001-01T	Reporting Period ³ :	NOVEMBER 2024
			Month	Year	

II. Chemical & Operational Information

Chemical Name ⁴ :	CALCIUM HYDROXIDE	Purchased Strength ⁵ :	0.85	Target Range/min ¹² :	NA
Manufacturer ⁵ :	CARMEUSE LIME & STONE	Purchased Density (lbs/gal) ⁹ :	18.7	Target Dose ¹³ :	NA
Product Name ⁶ :	HYDRATED LIME	Dilution Factor or Mix Ratio ¹⁰ :	NA	Alarm Setting (low) ¹⁴ :	NA
Reason for Adding Chemical ⁷ :	PH ADJUSTMENT	NSF Approved (Y/N) ¹¹ :	Y	Alarm Setting (high) ¹⁴ :	NA
		Date of last anti-siphon valve inspection/replacement ¹⁵ :			NA

III. Daily Reporting Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water ⁸ <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) ¹⁶	Chemical Dosage ¹⁸ (mg/L)	Parameters Measured [*] , Results, Units and Method ²⁰ - (G)rab or Continuous (A)nalyzer ²¹			O&M Notes/Comments ²² <small>PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.</small>	
		Volume ¹⁷ (gal/day)	Weight ¹⁷ (lbs/day)			a. <u>FINISHED PH</u>	b.	c.		
						<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input type="checkbox"/> G <input type="checkbox"/> A	<input type="checkbox"/> G <input type="checkbox"/> A		
1	2.6		100		4.6	7.05				
2	2.6		100		4.6	7.00				
3	2.5		100		4.8	6.90				
4	2.5		100		4.8	6.90				
5	2.6		100		4.6	7.00				
6	2.5		100		4.8	6.95				
7	2.6		100		4.6	6.90				
8	2.6		100		4.6	7.05				
9	2.5		100		4.8	7.10				
10	2.5		100		4.8	7.05				
11	2.5		100		4.8	6.90				
12	2.6		100		4.6	6.95				
13	2.5		100		4.8	6.90				
14	2.6		100		4.6	7.00				
15	2.6		100		4.6	7.00				
16	2.6		100		4.6	7.05				
17	2.6		100		4.6	7.00				
18	2.6		100		4.6	6.95				
19	2.7		100		4.4	6.90				
20	2.6		100		4.6	7.05				
21	2.5		100		4.8	7.10				
22	2.6		100		4.6	7.05				
23	2.5		100		4.8	7.00				
24	2.5		100		4.8	7.10				
25	2.7		100		4.4	7.05				
26	2.7		100		4.4	7.00				
27	2.7		100		4.4	6.95				
28	2.7		100		4.4	6.90				
29	2.6		100		4.6	7.00				
30	2.5		100		4.8	7.00				
31										

Total Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary²³:

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)²⁰.

a. *Finished PH, Daily Average, Test Kit*

b. I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

c. PWS Authorized Person, Signature & Date²⁴:
William Cokerly 12-2-2024
Print Name: *William Cokerly* Title: *Chief Operator*



Massachusetts Department of Environmental Protection – Drinking Water Program
CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

C-ADD

I. PWS Information – Refer to MassDEP “Chemical Addition Report Guidance and Instructions” for details.

PWS Name ¹ :	RANDOLPH-Holbrook JW	Town ¹ :	RANDOLPH-Holbrook	PWSID ¹ :	424001
Treatment Plant Name ² :	RANDOLPH WATER PLANT	Treatment Plant ID# ² :	4244001-01T	Reporting Period ² :	NOVEMBER 2021 Month Year

II. Chemical & Operational Information

Chemical Name ⁴ :	SODIUM BISULFATE	Purchased Strength ⁸ :	10-15	Target Range/min ¹² :	NA
Manufacturer ⁵ :	CARUS CORPORATION	Purchased Density (lbs/gal) ⁹ :	12.03	Target Dose ¹³ :	NA
Product Name ⁶ :	CARUS 3350	Dilution Factor or Mix Ratio ¹⁰ :	0.33	Alarm Setting (low) ¹⁴ :	NA
Reason for Adding Chemical ⁷ :	CORROSION INHIBITOR	NSF Approved (Y/N) ¹¹ :	Y	Alarm Setting (high) ¹⁴ :	NA
		Date of last anti-siphon valve inspection/replacement ¹⁵ :	NA		

III. Daily Reporting Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water ¹⁶ <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) ¹⁸	Chemical Dosage ¹⁶ (mg/L)	Parameters Measured ⁴ , Results, Units and Method ²⁰ - (G)rab or Continuous (A)nalyzer ²¹			O&M Notes/Comments ²² PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume ¹⁷ (gal/day)	Weight ¹⁷ (lbs/day)			a. FINISHED PH <input checked="" type="checkbox"/> G <input type="checkbox"/> A	b. <input type="checkbox"/> G <input type="checkbox"/> A	c. <input type="checkbox"/> G <input type="checkbox"/> A	
1	2.6		50		2.3	7.05			
2	2.6		50		2.3	7.00			
3	2.5		50		2.4	6.90			
4	2.5		50		2.4	6.90			
5	2.6		50		2.3	7.00			
6	2.5		50		2.4	6.95			
7	2.6		50		2.3	6.90			
8	2.6		50		2.3	7.05			
9	2.5		50		2.4	7.10			
10	2.5		50		2.4	7.05			
11	2.5		50		2.4	6.90			
12	2.6		50		2.3	6.95			
13	2.5		50		2.4	6.90			
14	2.6		50		2.3	7.00			
15	2.6		50		2.3	7.00			
16	2.6		50		2.3	7.05			
17	2.6		50		2.3	7.00			
18	2.6		50		2.3	6.95			
19	2.7		50		2.2	6.90			
20	2.6		50		2.3	7.05			
21	2.5		50		2.4	7.10			
22	2.6		50		2.3	7.05			
23	2.5		50		2.4	7.00			
24	2.5		50		2.4	7.10			
25	2.7		50		2.2	7.05			
26	2.7		50		2.2	7.00			
27	2.7		50		2.2	6.95			
28	2.7		50		2.2	6.90			
29	2.6		50		2.3	7.00			
30	2.5		50		2.4	7.00			
31									

Total Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary²³:

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)²⁰:

a. Finished Water PH, Daily Average, Test Kit

b.

c.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Person - Signature & Date²⁴:

William Coakley 12-2-2021

Print Name: William Coakley Title: Chief Operator



DBPR TT Compliance Report

I. PWS INFORMATION

PWS ID #: 4244001 City/Town: RANDOLPH

PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Class: COM NTNC TNC

DEP LOCATION (LOC) ID#	DEP Location Name	Date Collected	Collected By
<u>015/20300</u>	<u>RAW WATER/COMBINED FILTER EFFLUENT</u>	<u>11-8-2021</u>	<u>Bill Cooksey</u>

SAMPLE NOTES

II. COMPLIANCE CALCULATIONS

Month	# of Paired Samples	A: % Removal of TOC ¹	B: Required % Removal of TOC ²	Met Alternative Compliance Criteria	Alternative Criteria Result(s) ³ (See Below)	A ÷ B ⁴
<u>12-20</u>	<u>1</u>	<u>42</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.20</u>
<u>1-21</u>	<u>1</u>	<u>43</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.23</u>
<u>2-21</u>	<u>1</u>	<u>38</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.09</u>
<u>3-21</u>	<u>1</u>	<u>38</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.09</u>
<u>4-21</u>	<u>1</u>	<u>35</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.00</u>
<u>5-21</u>	<u>1</u>	<u>42</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.20</u>
<u>6-21</u>	<u>1</u>	<u>38</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.09</u>
<u>7-21</u>	<u>1</u>	<u>42</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.20</u>
<u>8-21</u>	<u>1</u>	<u>46</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.31</u>
<u>9-21</u>	<u>1</u>	<u>43</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.23</u>
<u>10-21</u>	<u>1</u>	<u>45</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.29</u>
<u>11-21</u>	<u>1</u>	<u>43</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.23</u>
Sum of Past 12 Months:						<u>14.16</u>
Compliance Value (Sum of Past 12 Months/ 12):						<u>1.18</u>

I certify under penalty of law that I am the person authorized to sign this form and the information contained herein is true and complete to the best of my knowledge.

PWS Authorized Signature: William Cooksey
Date: 12-14-2021

Mail ONE copy of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

¹ Percent Removal: (1 - (Treated Water TOC + Raw Water TOC)) x 100. If > 1 paired sample sets in any month report the average of all individual percent TOC removals (Example: % TOC Removal = (Average of Set 1 + Average of Set 2) ÷ 2).

² From table at 310 CMR 22.07E(10)(b)2.

³ As listed at 310 CMR 22.07E(10)(a)2 and 310 CMR 22.07E(10)(a)3, summarized as follows:

Alternative Compliance Criteria	Code Value	Result(s) to Report (RAA - Running Annual Average)
Source Water TOC < 2.0 mg/L	SWTOC	RAA of source water TOC
Treated Water < 2.0 mg/L	TWTOC	RAA of treated water TOC
Source Water TOC < 4.0 mg/L AND Alkalinity > 60 mg/L (as CaCO ₃) AND TTHM/HAA5 ≤ 0.040/0.030 mg/L	COMBO	RAA of source water TOC, RAA of source water alkalinity, RAA of TTHM and HAA5
TTHM/HAA5 ≤ 0.040/0.030 mg/L AND only using chlorine	TTHM/HAA5	RAA of TTHM and HAA5
Source Water SUVA ≤ 2.0 L/mg-m	SWSUVA	RAA of treated water SUVA
Treated Water SUVA ≤ 2.0 L/mg-m	TWSUVA	RAA of treated water SUVA
Softening that lowers alkalinity to < 60 mg/L (as CaCO ₃)	SOFT60	RAA of treated water alkalinity
Softening that removes ≥ 10 mg/L (as CaCO ₃) of hardness	SOFT10	RAA of hardness (as CaCO ₃) removal

Note: All supplemental measurements and calculations used to meet the alternative criteria must be attached to this report.

⁴ For any month where the system met an alternative compliance criteria a value of 1.0 may be inserted.

DEP REVIEW STATUS (Initial & Date)	Review Comments
<input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____	



Total Organic Carbon (TOC) Report doc rev 12/2020

PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: 4244001 City/Town: RANDOLPH

PWS Name: RANDOLPH HOLBROOK WATER BOARD PWS Class: COM [x] NTNC [] TNC []

Table with columns: DEP LOCATION (LOC) ID#, DEP Location Name, Sample Information, Date Collected, Collected By. Includes rows for Great Pond WTP - Raw Water and Combined Filter Effluent - Raw Water.

ANALYTICAL LABORATORY INFORMATION

Primary Lab MA Cert. #: M-MA022 Primary Lab Name: Analytical Balance Subcontracted?(Y/N) N
Analysis Lab MA Cert. #: M-MA022 Analysis Lab Name: Analytical Balance

Table with columns: TOC Analyzed by (check one), Samples Acidified?, TOC Result (mg/L), Result Qualifier, MDL (mg/L), MRL (mg/L), Dilution Factor, Lab Method, Date Analyzed, Primary Lab Sample ID#, Analytical Lab or PWS Sample ID#.

Surface or GWUDI systems >= 600 persons. Monthly source (raw) water TOC sampling is required at each surface/GWUDI source to qualify for and remain on reduced THM/HAA5 monitoring. Each source must maintain a running annual average source (raw) water TOC level of <= 4.0 mg/L (calculated quarterly). TOC analysis does not require the use of a Massachusetts or EPA certified laboratory.

Table with columns: Alkalinity Analyzed by (check one), ALKALINITY Result (mg/L as CaCO3), Result Qualifier, MDL (mg/L), MRL (mg/L), Dilution Factor, Lab Method, Date Analyzed, Primary Lab Sample ID#, Analytical Lab or PWS Sample ID#.

If using conventional filtration - Raw water alkalinity must be measured at the same time as the raw water TOC sample is collected. Alkalinity analysis does not require the use of a Massachusetts or EPA certified laboratory

Table with columns: LAB SAMPLE COMMENTS, Result Qualifier, Result Qualifier Description.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge. Primary Certified Operator or Primary Lab Director Signature: Laurel Stoddard Date: 11/16/2021

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same

Table with columns: DEP REVIEW STATUS (Initial & Date), Review Comments, WQTS Data Entered.



Total Organic Carbon (TOC) Report doc rev 12/2020

PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form.

PWS ID #: 4244001 City / Town: RANDOLPH
PWS Name: RANDOLPH HOLBROOK WATER BOARD PWS Class: COM [x] NTNC [] TNC []

Table with columns: DEP LOCATION (LOC) ID#, DEP Location Name, Sample Information, Date Collected (Date, Time), Collected By. Includes rows for A (01S) and B (10300).

III. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #: M-MA022 Primary Lab Name: Analytical Balance
Analysis Lab MA Cert. #: M-RJ002 Analysis Lab Name: ESS Lab Subcontracted?(Y/N) Y

Table with columns: TOC Analyzed by (check one), Samples Acidified?, TOC Result (mg/L), Result Qualifier, MDL (mg/L), MRL (mg/L), Dilution Factor, Lab Method, Date Analyzed, Primary Lab Sample ID#, Analytical Lab or PWS Sample ID#.

Surface or GWUDI systems >= 500 persons. Monthly source (raw) water TOC sampling is required at each surface/GWUDI source to qualify for and remain on reduced THM/HAA5 monitoring.

Table with columns: ALKALINITY Result (mg/L as CaCO3), Result Qualifier, MDL (mg/L), MRL (mg/L), Dilution Factor, Lab Method, Date Analyzed, Primary Lab Sample ID#, Analytical Lab or PWS Sample ID#.

If using conventional filtration - Raw water alkalinity must be measured at the same time as the raw water TOC sample is collected.

Table with columns: LAB SAMPLE COMMENTS, Result Qualifier, Result Qualifier Description. Includes rows for A and B.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator or Primary Lab Director Signature: Laurel Stoddard Date: 11/12/2021

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner.

EP REVIEW STATUS (Initial & Date) Review Comments WQTS Data Entered



Massachusetts Department of Environmental Protection - Drinking Water Program
 TURBIDITY - INDIVIDUAL FILTER MONITORING
 For Conventional or Direct Filtered Systems

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III. DAILY REPORTING

Day	Filter Number	1	Filter Number	2	Filter Number	3	Filter Number	4
	³ Max Day NTU	⁴ Max after 4 Hours NTU	³ Max Day NTU	⁴ Max after 4 Hours NTU	³ Max Day NTU	⁴ Max after 4 Hours NTU	³ Max Day NTU	⁴ Max after 4 Hours NTU
1	0.054000	0.102000	0.059000	0.043000	0.084000	0.068000	0.033000	
2	0.175000	0.082000	0.026000		0.029000		0.035000	0.066000
3	0.058000		0.025000	0.052000	0.025000	0.076000	0.028000	0.068000
4	0.171000	0.095000	0.033000	0.077000	0.048000	0.050000	0.036000	0.033000
5	0.071000	0.068000	0.094000	0.039000	0.114000	0.045000	0.028000	
6	0.058000	0.099000	0.028000		0.028000		0.025000	0.117000
7	0.059000		0.024000	0.103000	0.025000	0.117000	0.027000	0.088000
8	0.055000	0.119000	0.053000	0.051000	0.025000	0.062000	0.064000	0.052000
9	0.054000	0.126000	0.025000	0.073000	0.025000	0.076000	0.029000	
10	0.051000	0.122000	0.028000		0.029000		0.025000	0.079000
11	0.058000		0.023000	0.101000	0.024000	0.089000	0.027000	0.109000
12	0.054000	0.123000	0.026000	0.116000	0.030000	0.094000	0.037000	0.041000
13	0.055000	0.093000	0.023000	0.091000	0.024000	0.064000	0.031000	
14	0.052000	0.124000	0.035000		0.028000		0.029000	0.155000
15	0.058000		0.026000	0.070000	0.025000	0.123000	0.030000	0.107000
16	0.207000		0.025000	0.068000	0.030000	0.078000	0.037000	0.140000
17	0.055000	0.092000	0.029000	0.063000	0.031000	0.061000	0.045000	
18	0.068000	0.076000	0.038000		0.034000		0.042000	0.093000
19	0.063000		0.030000	0.062000	0.056000	0.069000	0.034000	0.058000
20	0.055000	0.126000	0.026000	0.111000	0.029000	0.092000	0.095000	0.098000
21	0.057000	0.126000	0.029000	0.095000	0.038000	0.106000	0.066000	
22	0.120000	0.101000	0.034000		0.038000		0.082000	0.141000
23	0.063000		0.027000	0.255000	0.031000	0.170000	0.106000	0.083000
24	0.060000	0.210000	0.031000	0.105000	0.035000	0.081000	0.108000	0.096000
25	0.060000	0.139000	0.043000	0.084000	0.123000	0.105000	0.178000	
26	0.071000	0.119000	0.045000	0.124000	0.289000		0.209000	0.162000
27	0.072000	0.155000	0.171000	0.089000	0.289000	0.154000	0.161000	0.255000
28	0.070000	0.219000	0.046000	0.210000	0.158000	0.107000	0.128000	0.302000
29	0.057000	0.259000	0.032000	0.130000	0.147000	0.309000	0.095000	0.325000
30	0.057000	0.155000	0.032000	0.081000	0.067000	0.073000	0.156000	0.284000
31								

- Systems shall conduct continuous turbidity monitoring of the filter effluent for each individual filter at the filtration facility and record turbidity measurements every 15-minutes. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. Individual filter turbidity records must be retained for 3 years and kept on file for MassDEP review.
- Systems serving less than 10,000: If the treatment system has only one or two filters, the supplier may conduct continuous monitoring of the CFE turbidity in lieu of individual filter effluent (IFE) turbidity monitoring. If there are two filters, a continuous turbidity monitor can be installed on the combined filter effluent. If a CFE problem appears, follow-up action must then be completed on both filters.
- Enter the highest daily 15-minute interval turbidity measurement recorded for the filter specified.
- Enter the highest daily 15-minute interval turbidity measurement recorded at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature:

William Cookley
Chief Operator

Date: 12/6/2021

Title:

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.



Massachusetts Department of Environmental Protection - Drinking Water Program
 TURBIDITY - INDIVIDUAL FILTER MONITORING
 For Conventional or Direct Filtered Systems

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III. DAILY REPORTING

Day	Filter Number 5		Filter Number 6		Filter Number 7		Filter Number 8	
	³ Max Day NTU	⁴ Max after 4 Hours NTU	³ Max Day NTU	⁴ Max after 4 Hours NTU	³ Max Day NTU	⁴ Max after 4 Hours NTU	³ Max Day NTU	⁴ Max after 4 Hours NTU
1	0.040000		0.036000	0.069000	0.028000	0.075000	0.075000	0.054000
2	0.031000	0.150000	0.025000	0.069000	0.076000	0.044000	0.081000	0.056000
3	0.056000	0.091000	0.059000	0.037000	0.150000	0.060000	0.028000	
4	0.043000	0.048000	0.028000		0.032000		0.027000	0.054000
5	0.035000		0.090000	0.037000	0.032000	0.044000	0.032000	0.042000
6	0.234000	0.076000	0.025000	0.057000	0.026000	0.080000	0.129000	0.048000
7	0.033000	0.128000	0.029000	0.072000	0.028000	0.117000	0.040000	
8	0.034000	0.114000	0.029000		0.032000		0.035000	0.199000
9	0.038000		0.026000	0.119000	0.026000	0.112000	0.028000	0.106000
10	0.032000	0.220000	0.027000	0.089000	0.026000	0.092000	0.027000	0.093000
11	0.032000	0.123000	0.027000	0.245000	0.026000	0.145000	0.030000	
12	0.032000	0.108000	0.028000		0.032000		0.028000	0.100000
13	0.039000		0.025000	0.203000	0.024000	0.110000	0.023000	0.103000
14	0.032000	0.209000	0.024000	0.121000	0.025000	0.101000	0.027000	0.072000
15	0.035000	0.104000	0.029000	0.070000	0.030000	0.090000	0.034000	
16	0.035000	0.183000	0.037000		0.033000		0.098000	
17	0.042000		0.036000	0.078000	0.030000	0.098000	0.034000	0.073000
18	0.040000	0.123000	0.045000	0.106000	0.031000	0.095000	0.034000	0.089000
19	0.044000	0.088000	0.031000	0.105000	0.035000	0.108000	0.040000	
20	0.060000	0.132000	0.083000		0.036000		0.036000	0.126000
21	0.051000		0.092000	0.250000	0.033000	0.145000	0.031000	0.100000
22	0.060000	0.359000	0.085000	0.117000	0.031000	0.111000	0.042000	0.064000
23	0.045000	0.128000	0.036000	0.331000	0.034000	0.150000	0.035000	
24	0.058000	0.160000	0.084000		0.039000		0.034000	0.147000
25	0.080000		0.096000	0.150000	0.050000	0.151000	0.050000	0.151000
26	0.121000	0.124000	0.188000	0.172000	0.043000	0.100000	0.059000	0.144000
27	0.062000	0.274000	0.203000	0.351000	0.058000	0.158000	0.078000	0.158000
28	0.068000	0.421000	0.176000	0.118000	0.042000	0.189000	0.119000	0.156000
29	0.060000	0.339000	0.257000	0.263000	0.118000	0.137000	0.102000	0.139000
30	0.047000	0.399000	0.116000	0.179000	0.077000	0.060000	0.027000	0.117000
31								

- Systems shall conduct continuous turbidity monitoring of the filter effluent for each individual filter at the filtration facility and record turbidity measurements every 15-minutes. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. Individual filter turbidity records must be retained for 3 years and kept on file for MassDEP review.
- Systems serving less than 10,000: If the treatment system has only one or two filters, the supplier may conduct continuous monitoring of the CFE turbidity in lieu of individual filter effluent (IFE) turbidity monitoring. If there are two filters, a continuous turbidity monitor can be installed on the combined filter effluent. If a CFE problem appears, follow-up action must then be completed on both filters.
- Enter the highest daily 15-minute interval turbidity measurement recorded for the filter specified.
- Enter the highest daily 15-minute interval turbidity measurement recorded at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature:

William Cookley
 Chief Operator

Date: 12/6/2021

Title:

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.



Massachusetts Department of Environmental Protection - Drinking Water Program
CHLORINE/CHLORAMINES - MONTHLY REPORT

CI

I. PWS INFORMATION:

PWS ID #: **4133000** PWS Name: **TOWN OF HOLBROOK** City/Town: **HOLBROOK** Class: COM NTNC TNC
 II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.
 Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM 4500-Cl: D E F G H I ASTM D1253-86

Notes:

DEP Sample Type ^{1,4}	DEP Location Code # ¹	DEP APPROVED SAMPLE SITE INFORMATION ¹		CHLORINE RESULT ² (mg/L)	COLLECTION AND ANALYSIS ³ :		COLLECTED AND ANALYZED BY:
		DEP Approved SAMPLE LOCATION ¹	DEP Approved SAMPLE LOCATION ¹		DATE	TIME	
RS	001	TOWN HALL		1.3	11/1/2021	07:15	J. Maclane
RS	004	COTTAGE VARIETY		1.24	11/1/2021	08:00	J. Maclane
RS	008E	STEWARTS POWER EQUIPMENT		.02	11/1/2021	07:45	J. Maclane
RS	006	COMMUNITY CENTER		.03	11/1/2021	09:20	J. Maclane
RS	001	TOWN HALL		1.47	11/8/2021	07:07	T. Duggan
RS	004	COTTAGE VARIETY		1.61	11/8/2021	07:55	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT		.15	11/8/2021	07:33	T. Duggan
RS	006	COMMUNITY CENTER		.02	11/8/2021	08:45	T. Duggan
RS	001	TOWN HALL		1.32	11/15/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY		1.55	11/15/2021	07:58	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT		.08	11/15/2021	07:53	T. Duggan
RS	006	COMMUNITY CENTER		.02	11/15/2021	07:33	T. Duggan
RS	001	TOWN HALL		1.47	11/23/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY		1.09	11/23/2021	08:15	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT		.05	11/23/2021	07:47	T. Duggan
RS	006	COMMUNITY CENTER		.09	11/23/2021	08:58	T. Duggan
RS	001	TOWN HALL		1.40	11/29/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY		1.52	11/29/2021	08:02	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT		.04	11/29/2021	08:35	T. Duggan
RS	006	COMMUNITY CENTER		1.22	11/29/2021	07:33	T. Duggan

¹ DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.

² SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.

³ Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).

⁴ Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).

⁵ All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month⁵: **70** Average Chlorine Result of All Samples For Month⁵ (mg/L): **1.27**

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: *T. Maclane* 12-10-2021

DEP Review Status: Accepted Disapproved Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program
CHLORINE/CHLORAMINES - MONTHLY REPORT

CI

I. PWS INFORMATION:

PWS ID #: **4133000** PWS Name: **TOWN OF HOLBROOK** City/Town: **HOLBROOK** Class: COM NTNC TNC

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM 4500-Cl: D E F G H I ASTM D1253-86

Notes:

DEP Sample Type ^{1,4}	DEP APPROVED SAMPLE SITE INFORMATION ¹		CHLORINE RESULT ² (mg/L)	COLLECTION AND ANALYSIS ³		COLLECTED AND ANALYZED BY:
	DEP Location Code # ¹	DEP Approved SAMPLE LOCATION ¹		DATE	TIME	
RS	001	TOWN HALL	1.3	11/1/2021	07:15	J. Maclane
RS	004	COTTAGE VARIETY	1.24	11/1/2021	08:00	J. Maclane
RS	008E	STEWARTS POWER EQUIPMENT	.02	11/1/2021	07:45	J. Maclane
RS	006	COMMUNITY CENTER	.03	11/1/2021	09:20	J. Maclane
RS	001	TOWN HALL	1.47	11/8/2021	07:07	T. Duggan
RS	004	COTTAGE VARIETY	1.61	11/8/2021	07:55	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.15	11/8/2021	07:33	T. Duggan
RS	006	COMMUNITY CENTER	.02	11/8/2021	08:45	T. Duggan
RS	001	TOWN HALL	1.32	11/15/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY	1.55	11/15/2021	07:58	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.08	11/15/2021	07:53	T. Duggan
RS	006	COMMUNITY CENTER	.02	11/15/2021	07:33	T. Duggan
RS	001	TOWN HALL	1.47	11/23/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY	1.09	11/23/2021	08:15	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.05	11/23/2021	07:47	T. Duggan
RS	006	COMMUNITY CENTER	.09	11/23/2021	08:58	T. Duggan
RS	001	TOWN HALL	1.40	11/29/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY	1.52	11/29/2021	08:02	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.04	11/29/2021	08:35	T. Duggan
RS	006	COMMUNITY CENTER	1.22	11/29/2021	07:33	T. Duggan

¹ DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.

² SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SMWR Form.

³ Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).

⁴ Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).

⁵ ALL DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month: **70** Average Chlorine Result of All Samples For Month⁵ (mg/L): **1.27**

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: *[Signature]* 12-10-2021

DEP Review Status: Accepted Disapproved

Review Comments:



CHLORINE/CHLORAMINES - MONTHLY REPORT

1. PWS INFORMATION:

PWS ID #: 0244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM NTNC TNC

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DIPP's monitoring plan to help complete this section.

Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM 4500-Cl D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KK KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZY ZZ

Notes:

DIP Sample Type	DIP Location Code #	DIP APPROVED SAMPLE SITE INFORMATION		CHLORINE RESULT (mg/L)	COLLECTION AND ANALYSIS ¹		COLLECTED AND ANALYZED BY ¹
		DIP Approved Sample Location ²	DIP Approved Sample Location ³		DATE	TIME	
RS	000	TOWER HILL SCHOOL	ADAMS STREET	1.72	11-1-21	10:45AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL	20 HURLEY DRIVE	1.59		7:30 AM	
RS	006	MARTIN E. YOUNG SCHOOL	COURTNEY DRIVE	1.48		9:15 AM	
RS	008	CHRYSLER INN	1874 NORTH MAIN STREET	2.06		11:15AM	
RS	008	NORTH MIDDLE SCHOOL	HIGH STREET	1.77		11:45 AM	
RS	011	MOBIL STATION	80 MAZZEO DRIVE	1.48		9:45AM	
RS	012	7-11	FOOD SHOP	076 NORTH STREET	0.57	8:30AM	
RS	014	EMERSON	177 NORTH MAIN STREET	NO ACCESS	DUE TO COVID-19		
RS	016	AXP AUTO	317 NORTON MAIN ST	1.72		8:00 AM	
RS	016	OAK GROVE STANDPIPE		1.10		10:15AM	
RS	017	SOUTH MAIN STREET STANDPIPE		0.84		8:45 AM	

¹ DIP Sample Type, Location Code, and DIP Approved Sample Site Location must correspond to the same information on your DIP Total Coliform Sampling Plan. SWTR systems that are collected at distribution sites with zero chlorine residual and results reported on the DIP Bacteriological Monthly Report form and on the appropriate SWTR Form. Collection and Analytical Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record trip values as 0 (zero). Sample Type: RS: Routine Distribution Sample, RC: Routine Site Report, UR: Upstream Report, DR: Downstream Report, AR: Additional Report, or SS: Special Sample (as determined by DIPP). All distribution samples taken and analyzed shall be included in determining compliance, even if their number is greater than the minimum required. If you collect repeat-coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat site and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month: 70 Average Chlorine Residual for Month: 1.27

I hereby certify that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best of my knowledge.

Primary Certified Operator Signature and Date: William Carter 12-10-2021

DIP Review Status: Accepted Disapproved Review Comments:

CHLORINE CHLORAMINES - MONTHLY REPORT

1. PWS INFORMATION:

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM NTNC TNC

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DEPR monitoring plan to help complete this section.

Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM 4500-Cl D E F G H I ASTM D1245-06

Notes:

DEP Sample Type	DEP Location Code #	DEP APPROVED SAMPLE SITE INFORMATION		CHLORINE RESULT (mg/L)	COLLECTION AND ANALYSIS		COLLECTED AND ANALYZED BY
		DEP Approved Sample Location	Address		DATE	TIME	
RS	003	TOWER HILL SCHOOL	ADAMS STREET	1.81	11-8-2011	10:30 AM	JASON PETERSON
RS	004	JFK SCHOOL	80 HURLEY DRIVE	1.79		7:30 AM	
RS	005	MARTIN E. YOUNG SCHOOL	COURTNEY DRIVE	1.75		8:00 AM	
RS	006	COURTNEY INN	1874 NORTH MAIN STREET	1.97		11:30 AM	
RS	008	NORTH MIDDLE SCHOOL	HIGH STREET	1.74		11:00 AM	
RS	011	MOBIL STATION	88 MAZZEO DRIVE	1.67		9:45 AM	
RS	012	FOOD SHOP	676 NORTH STREET	1.74		8:30 AM	
RS	014 A	SPRINGS	27 NORTH MAIN STREET	NO ACCESS	DME TO	COVID-19	
RS	014 B	EXP 610	317 NORTH MAIN ST	1.87			
RS	016	OAK GROVE STANDPIPE		1.24		10:15 AM	
RS	017	SOUTH MAIN STREET STANDPIPE		1.07		8:15 AM	

DEPR Sample Type, Location Code, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan. SWTR systems (PWS) must be included at distribution sites with zero chlorine residual and results reported on the DEP Sanitological Monthly Report form and on the appropriate SWTR Form. Chlorine and hypochlorite chlorine residual at the site immediately upon collection at the same time and location in the distribution system as total coliforms are sampled. Report WQ values as 0 (zero). Sample Type, RS-Nonline Chlorine Sample, TO-Original Site Request, UP-Treatment Request, DR-Disinfection Report, AP-Additional Report, or Special Sample (as determined by DEP). All analytical samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect representative samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these results. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

DEPR Compliance Requirements: Total Chlorine Free Chlorine Combined Chlorine Chlorine Residual Average Chlorine Residual of All Standpipes for Month: 70 Average Chlorine Residual of All Standpipes for Month: 1.87

I certify under penalties of law that I am the person authorized to fill out this report and the information contained herein is true, accurate and complete to the best of my knowledge.

Primary Certified Operator Signature: *[Signature]* and District

DEPR Review Status: Accepted Disapproved Review Comments



CHLORINE CHLORAMINES - MONTHLY REPORT

1. PWS INFORMATION:

PWS ID #: 4224000 PWS Name: RANDOLPH WATER DEPARTMENT

City/Town: RANDOLPH

Class: COM NTNG TNG

2. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DEP's monitoring plan to help complete this section.

Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM 4500-Cl D E F G H I ASTM D1249-86

Notes:

DEP APPROVED SAMPLE SITE INFORMATION		CHLORINE RESULT (mg/L)	COLLECTION AND ANALYSIS		COLLECTED AND ANALYZED BY:
DEP Sample Type	DEP Location Code		DATE	TIME	
RS	003	1.84	11/15/21	10:15 AM	A. PIERRE-LOUIS
RS	004	1.73		7:30 AM	
RS	006	1.67		9:00 AM	
RS	008	1.71		11:15 AM	
RS	008	1.73		10:45 AM	
RS	011	1.69		9:45 AM	
RS	012	1.70		8:30 AM	
RS	014	No Access	DNE	COVID-19	
RS	016	1.78		8:00 AM	
RS	016	1.83		12:00 PM	
RS	017	1.04		8:45 AM	

DEP Sample Type, Location Code, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan. DEP Sample Type, Location Code, and DEP Approved Sample Site Location must correspond to the same information on the DEP Analytical Monitoring Report form and on the appropriate SWTR Form. Coliform and Analytical Chlorine results shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record MS values as 0 (zero). Sample Type, Location Code, and DEP Approved Sample Site Location must be included in the DEP Analytical Monitoring Report, DEP Analytical Report, or DEP Analytical Sample Log determined by DEP. All analytical results shall be included in the distribution system compliance report, even if that number is greater than the minimum required. If you collect representative samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat site and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

DEP COMPLIANCE REQUIREMENTS: Test W of Supplies Checked for Month: 70 Average Chlorine Residual for Month: 1.27

I certify under penalties of law that I am the person authorized to fill out this form and the information furnished herein is true, accurate and complete to the best extent of my knowledge.

Primary Contact: William G. Gentry Supervisor and Contact

Date: 12-10-2021

DEP Review Status: Accepted Disapproved Review Comments:



CHLORINE/CHLORAMINES - MONTHLY REPORT

1. PWS INFORMATION:

PWS ID #: 02244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM NTWC TNG

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DEPR monitoring plan to help complete this section.

Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM-4500-Cl D E F G H I ASTM D1243-88

Notes:

DEP Sample Type	DEP Location Code	DEP APPROVED SAMPLE SITE INFORMATION		CHLORINE RESULT (mg/L)	COLLECTION AND ANALYSIS		COLLECTED AND ANALYZED BY
		DEP Approved Sample Location	DEP Approved Sample Location		DATE	TIME	
RS	003	TOWNE HILL SCHOOL	ADAMS STREET	1.64	11-22-21	10:15 AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL	20 HURLEY DRIVE	1.52		7:30 AM	
RS	006	MARTIN E. YOUNG SCHOOL	COURTNEY DRIVE	1.18		9:00 AM	
RS	008	CAMPBELL INN	1274 NORTH MAIN STREET	1.87		11:15 AM	
RS	008	NORTH MIDDLE SCHOOL	HIGH STREET	1.60		10:45 AM	
RS	011	MOBI. STATION	88 MAZZEO DRIVE	1.36		9:45 AM	
RS	012	7-11	FOOD SHOP	0.96		8:30 AM	
RS	014	EVERETT	279 NORTH MAIN STREET	NO ACCESS		COVID-19	
RS	014E	ASP AUTO	317 NORTH MAIN STREET	1.71		8:00 AM	
RS		OAK GROVE STANDPIPE		1.20		10:00 AM	
RS		SOUTH MAIN STREET STANDPIPE		0.99		8:45 AM	

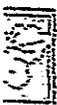
DEP Sample Type, Location Code, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan. A Coliform system (PWS) must be collected at a location with zero chlorine residual and results reported on the DEP Sanitization Monthly Report form and on the appropriate SWTR Form. Sample Type, Free Chlorine, Chlorine Residual, and Chloramines must be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record N/A values as 0 (zero). All analytical results must be reported on the DEP Sanitization Monthly Report, DEPR, or DEP Sanitization Report. An Additional Report, or Supplemental Report, as determined by DEP, may be required. If you collect representative samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat area and include these samples, DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

DEP Compliance/Annual Reporting: Yes No Partial Other Treated W of Supplies Collected for Analysis: 70 Average Chlorine Residual of All Stations Per Month: (mg/L): 1.27

I verify under penalties of law that I am the person authorized to fill out this report and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Contacted: William Corbett Supervisor and Contact 12-10-2021

DEP Review Status: Accepted Disapproved Review Comments:



CHLORINE CHLORAMINES - MONTHLY REPORT

3. PWS INFORMATION:

PWS ID #: 424000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM NTNG TNG

4. ANALYTICAL INFORMATION: Refer to your MassDEP Collection Sampling Plan and/or DEP's monitoring plan to help complete this section.

Type Measured: Free Chlorine Total Chlorine Combined Chlorine Analytical Method: SM 4500-Cl D E F G H ASTM D1253-08

Notes:

DEP Sample Type	DEP Location Code	DEP APPROVED SAMPLER SITE INFORMATION		CHLORINE RESULT (mg/L)	COLLECTION AND ANALYSIS		COLLECTED AND ANALYZED BY
		DEP Approved Sampler Location	DEP Approved Sampler Location		DATE	TIME	
RS	003	TOWER HILL SCHOOL	ADAMS STREET	1.74	11-29-21	8:45	ASST
RS	004	JFK SCHOOL	20 HURLEY DRIVE	1.69		8:26	ASST SHANNON
RS	005	MARTIN E. YOUNG SCHOOL	COURTNEY DRIVE	1.28		7:30	
RS	006	CHERRYBAY INN	1874 NORTH MAIN STREET	1.62		10:00	
RS	008	NORTH MIDDLE SCHOOL	HIGH STREET	1.65		9:50	
RS	011	MOBIL STATION	83 MAZZEO DRIVE	1.50		9:30	
RS	012	7-11 FOOD SHOP	678 NORTH STREET	.32		7:50	
RS	014	575 NORTH MAIN STREET		NO ACCESS	DVE	TO	COVID-19
RS	016	317 NORTH MAIN STREET		1.65		10:45	
		OAK GROVE STANDPIPE		1.24		2:10	
RS	017	SOUTH MAIN STREET	EVANESPIPE	1.13		11:15	

DEP Sample Type, Location Code, and DEP Approved Sampler Site Location must correspond to the same information on your DEP Total Chlorine Sampling Plan. SWTR systems that collect at distribution area with zero chlorine residual and results reported on the DEP Analytical Monitoring Report Form, and on the appropriate SWTR Form, Collection and Analysis Chlorine Residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total chlorine are sampled. Record the values as 0 (zero). Sample Type, Residual Chlorine Residual, and Chlorine Residual are not reported on the DEP Analytical Monitoring Report, Air-Additional Report, or DEP Analytical Sample (as determined by DEP). All analytical samples must be analyzed at the time of collection, even if that number is greater than the minimum required. If you collect representative samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

DEP Collection and Analysis Report Form: 11-29-21 Average Chlorine Residual of All Samples Collected for Month: 1.27
 Primary Standard Operator Signature: William Conroy and Contact: 11-29-21
 Reviewer Signature: 12-10-2021

DEP Review Status: Accepted Disapproved Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program
Disinfection Byproducts Rule Compliance Report

DBPR

I. PWS INFORMATION Please refer to your DBPR Monitoring Plan to help complete this form.

PWS ID #: 4244001 City / Town: RANDOLPH
 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Class: COM NTNC TNC
 Monitoring Period (YEAR): 2021 Monitoring Period (QUARTER): Q1 (Jan-Mar) Q2 (Apr-Jun) Q3 (Jul-Sep) Q4 (Oct-Dec)

II. FOR SYSTEMS USING CHLORINATION

A. Trihalomethanes (TTHM)

Total Number of TTHM Samples:	Quarterly Average:	µg/L
Was the Running Annual Average MCL (80 µg/L) exceeded? Yes <input type="checkbox"/> No <input type="checkbox"/>	Running Annual Average:	µg/L

B. Haloacetic Acids (HAA5)

Total Number of HAA5 Samples:	Quarterly Average:	µg/L
Was the Running Annual Average MCL (60 µg/L) exceeded? Yes <input type="checkbox"/> No <input type="checkbox"/>	Running Annual Average:	µg/L

C. Chlorine/Chloramines

Total Number of Samples:	Month 1: <u>66</u> <u>OCT</u>	Monthly Averages: (report all 3 months per quarter)	<u>1.06</u> mg/L	Quarterly Average:	<u>1.17</u> mg/L	
	Month 2: <u>70</u> <u>NOV</u>					<u>1.27</u> mg/L
	Month 3: <u>DEC</u>					mg/L
Was the Running Annual Average MRDL (4.0 mg/L) exceeded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Running Annual Average:	<u>1.14</u> mg/L	

D. Total Organic Carbon - raw (TOC) (Required for SW or GWUDI Plant Name: _____)
systems >499 seeking or approved to reduce TTHM/HAA5 monitoring.)

Total Number of Samples:	Month 1:	Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:		mg/L		
	Month 3:		mg/L		
Was the (4.0 mg/L) threshold exceeded? Yes <input type="checkbox"/> No <input type="checkbox"/>				Running Annual Average:	mg/L

III. FOR SYSTEMS USING OZONATION

E. Bromate (treated) Plant Name: _____

Total Number of Samples:	Month 1:	Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:		mg/L		
	Month 3:		mg/L		
Was the Running Annual Average MCL (0.010 µg/l) exceeded? Yes <input type="checkbox"/> No <input type="checkbox"/>				Running Annual Average:	mg/L

F. Bromide (raw) Plant Name: _____
Required for systems seeking or approved to reduce Bromate monitoring

Total Number of Samples:	Month 1:	Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:		mg/L		
	Month 3:		mg/L		
Was the (0.05 mg/l) threshold exceeded? Yes <input type="checkbox"/> No <input type="checkbox"/>				Running Annual Average:	mg/L

IV. FOR SYSTEMS USING CHLORINE DIOXIDE

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature: William G. Gentry Date: 12-10-2021

DEFINITIONS	
MONTHLY AVERAGE:	Monthly average = average of all results within the current month.
QUARTERLY AVERAGE:	Quarterly Average = average result of all locations sampled during monitoring period
RUNNING ANNUAL AVERAGE:	Running Annual Average = Average of 4 quarters. Average of this quarter and three prior consecutive quarterly averages (for systems on quarterly monitoring)
TOTAL NUMBER OF SAMPLES:	Total number of samples collected during the monitoring period.

NOTE: Record and calculate all ND or <MDL results as the number zero (0).

Submit one copy of this form each quarter to your DEP regional office (by Jan 10th, April 10th, July 10th, and Oct 10th of each year)

DEP REVIEW STATUS (Initial & Date)	Review Comments
<input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____	