



**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 15, 2022

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, SUVA  
Chemical Addition Reports  
DBPR Compliance Report  
November, 2022 Randolph/Holbrook  
Joint Water System, PWS #424001

Gentlemen:

Enclosed please find all reports as referenced above for the month of November, 2022. 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: 2022

## 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).
<u>180</u>	= A Total # of filtered water turbidity measurements for month (SWTR - Form F)
<u>180</u>	= B Total # of filtered water turbidity measurements less than or equal to the specified limits for the filtration technology used. (SWTR - Form F)
<u>100</u>	= (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  if "None"

Date	Value	Date Reported to DEP	Date	Value	Date Reported to DEP

For each day the Max Day NTU limit is exceeded, the DEP must be notified by the end of the next business day. SWTR TT Violation (Tier 2). If DEP is not consulted within 24 hours then it is a SWTR TT (Tier 1) violation requiring public notification within 24 hours.

## 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

Day	Cl <sub>2</sub> mg/l												
1	<u>2.11</u>	6	<u>1.95</u>	11	<u>1.77</u>	16	<u>2.07</u>	21	<u>1.98</u>	26	<u>1.80</u>	31	
2	<u>1.99</u>	7	<u>2.00</u>	12	<u>1.78</u>	17	<u>2.07</u>	22	<u>1.19</u>	27	<u>1.79</u>		Residual Measured
3	<u>1.96</u>	8	<u>1.76</u>	13	<u>1.99</u>	18	<u>2.06</u>	23	<u>1.38</u>	28	<u>1.74</u>		<input checked="" type="checkbox"/> Free Cl <sub>2</sub>
4	<u>2.02</u>	9	<u>2.10</u>	14	<u>2.09</u>	19	<u>2.04</u>	24	<u>1.91</u>	29	<u>1.75</u>		<input type="checkbox"/> Total Cl <sub>2</sub>
5	<u>1.93</u>	10	<u>1.95</u>	15	<u>2.03</u>	20	<u>1.89</u>	25	<u>1.74</u>	30	<u>1.67</u>		<input type="checkbox"/> Combined Cl <sub>2</sub>

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.

Date(s) Residual < 0.2 mg/l	Duration of Low Level (hrs.)	Date Reported to DEP	Date(s) Residual < 0.2 mg/l	Duration of Low Level (hrs.)	Date Reported to DEP

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: 61 x # HPC sites > 500/mL: 0 x # HPC sites ≤ 500/mL: 61 x

<u>66</u>	= a	# of sites where Cl <sub>2</sub> residual measurements were made, whether a residual was detected or not (should be the same # of sites reported on your monthly DBPR Cl <sub>2</sub> residual report)
<u>0</u>	= b	# of sites HPC samples were analyzed instead of Cl <sub>2</sub> residual measurements
<u>0</u>	= c	# of sites where no Cl <sub>2</sub> residual was detected and no HPC sample was analyzed
<u>0</u>	= d	# of sites where no Cl <sub>2</sub> residual was detected and HPC > 500 CFU/mL
<u>0</u>	= e	# of sites where no Cl <sub>2</sub> 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 =  $\frac{(c+d+e)}{(a+b)} \times 100$  This Month % V = 0 x Previous Month % V = 0 is V > 5% for 2 months?  Yes  No

I certify under penalty of law that I am the person authorized to sign this report and the information contained herein is true.

PWS Authorized Signature: [Signature] DATE: 12/8/22



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

SWTR  
F

**RPWS INFORMATION:**

PWSID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH  
 Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: NOVEMBER Year: 2022

**DAILY 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
	.06	6	6	0
	.06	6	6	0
	.04	6	6	0
	.05	6	6	0
	.07	6	6	0
	.04	6	6	0
	.07	6	6	0
	.07	6	6	0
	.04	6	6	0
	.04	6	6	0
	.05	6	6	0
	.06	6	6	0
	.08	6	6	0
	.08	6	6	0
	.06	6	6	0
	.06	6	6	0
	.04	6	6	0
	.05	6	6	0
	.05	6	6	0
	.04	6	6	0
	.05	6	6	0
	.07	6	6	0
	.08	6	6	0
	.08	6	6	0
	.07	6	6	0
	.06	6	6	0
	.06	6	6	0
	.05	6	6	0
	.06	6	6	0
	.06	6	6	0
Totals:		180	180	0

Turbidity Meeting 95% Limit  
 B/A % 100  
 (Enter on SWTR Form G)

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 4<sup>th</sup> 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 Cookery, Chief Operator  
 Date: 12-1-2022 Title:



Massachusetts Department of Environmental Protection - Drinking Water Program **SWTR**  
**CT Determination for Filtered Systems** I

**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: 2022  
 Disinfectant<sup>1</sup>: Chlorine Gas/Ester Eff. Sequence of Application:  1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup>  4<sup>th</sup>  5  6<sup>th</sup>

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

Day	Peak Hourly Flow <sup>2</sup> (gpm)	Disinfectant Concentration <sup>3</sup> C (mg/L)	Disinfectant Contact Time <sup>4</sup> T (min.)	CT calc (= C x T)	pH <sup>5</sup>	Water Temp <sup>6</sup> (°C)	CT <sup>7</sup> 99.9	Inactivation Ratio <sup>8</sup> (CT calc / CT 99.9)	Inactivation Ratio <sup>9</sup> < 1.0
1	2,400	2.11	50	105.5	6.25	9.8	17	6.2	<input type="checkbox"/> Yes
2	2,400	1.99	50	99.5	6.20	10.4	17	5.9	<input type="checkbox"/> Yes
3	2,400	1.96	50	98	6.25	10.9	17	5.8	<input type="checkbox"/> Yes
4	2,400	2.02	50	101	6.15	10.9	17	5.9	<input type="checkbox"/> Yes
5	2,400	1.93	50	96.5	6.20	11.0	17	5.7	<input type="checkbox"/> Yes
6	2,400	1.95	50	97.5	6.20	11.0	17	5.7	<input type="checkbox"/> Yes
7	2,400	2.00	50	100	6.30	11.2	17	5.9	<input type="checkbox"/> Yes
8	2,400	1.76	50	88	6.15	11.6	17	5.2	<input type="checkbox"/> Yes
9	2,400	2.10	50	105	6.25	11.0	17	6.2	<input type="checkbox"/> Yes
10	2,400	1.95	50	97.5	6.10	11.4	17	5.7	<input type="checkbox"/> Yes
11	2,400	1.77	50	88.5	6.10	11.4	17	5.2	<input type="checkbox"/> Yes
12	2,400	1.78	50	89	6.25	11.3	17	5.2	<input type="checkbox"/> Yes
13	2,400	1.99	50	99.5	6.20	11.9	17	5.9	<input type="checkbox"/> Yes
14	2,400	2.03	50	101.5	6.05	11.7	17	6.0	<input type="checkbox"/> Yes
15	2,400	2.09	50	104.5	6.05	11.0	17	6.2	<input type="checkbox"/> Yes
16	2,400	2.07	50	103.5	6.15	10.8	17	6.1	<input type="checkbox"/> Yes
17	2,400	2.07	50	103.5	6.20	10.8	17	6.1	<input type="checkbox"/> Yes
18	2,400	2.06	50	102	6.35	9.8	17	6.1	<input type="checkbox"/> Yes
19	2,400	2.04	50	102	6.05	9.8	17	6.0	<input type="checkbox"/> Yes
20	2,400	1.89	50	94.5	6.20	9.6	17	5.6	<input type="checkbox"/> Yes
21	2,400	1.98	50	99	6.20	8.5	17	5.8	<input type="checkbox"/> Yes
22	2,400	1.19	50	59.5	6.15	8.0	17	3.5	<input type="checkbox"/> Yes
23	2,400	1.38	50	69	6.20	8.0	17	4.1	<input type="checkbox"/> Yes
24	2,400	1.91	50	95.5	6.30	8.3	17	5.6	<input type="checkbox"/> Yes
25	2,400	1.74	50	87	6.25	9.0	17	5.1	<input type="checkbox"/> Yes
26	2,400	1.80	50	90	6.15	8.0	17	5.3	<input type="checkbox"/> Yes
27	2,400	1.79	50	89.5	6.20	7.5	17	5.3	<input type="checkbox"/> Yes
28	2,400	1.74	50	87	6.15	7.5	17	5.1	<input type="checkbox"/> Yes
29	2,400	1.75	50	87.5	6.20	8.0	17	5.2	<input type="checkbox"/> Yes
30	2,400	1.67	50	83.5	6.25	7.6	17	4.9	<input type="checkbox"/> Yes
31			50						<input type="checkbox"/> Yes

- Use a separate form for each disinfectant/sampling point. Enter disinfectant and sequence position, e.g. "ozone/1<sup>st</sup>" or "ClO<sub>2</sub>/3<sup>rd</sup>". 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.
- Peak hourly flow means the highest pumpage hour during the day, not the absolute peak flow at any instant.
- The residual disinfectant concentration(s) ("C") of the water before or at the first customer must be measured each day during peak hourly flow.
- 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.
- 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.
- 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.
- Use Inactivation Tables at 310 CMR 22.20A Tables 1.1 - 1.6, 2.1 and/or 3.1
- 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.
- 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: 12-1-2022 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's Chemical Addition Report Guidance and Instructions\* for details.

PWS Name<sup>1</sup>: RANDOLPH-HOLBROOK JW Town<sup>1</sup>: RANDOLPH-HOLBROOK PWSID<sup>1</sup>: 424001  
 Treatment Plant Name<sup>2</sup>: RANDOLPH WATER PLANT Treatment Plant ID#<sup>2</sup>: 4244001-01T Reporting Period<sup>3</sup>: NOVEMBER 2022  
 Month: \_\_\_\_\_ Year: \_\_\_\_\_

**II. Chemical & Operational Information**

Chemical Name<sup>4</sup>: POLYALUMINUM CHLORIDE Purchased Strength<sup>8</sup>: 1.0 Target Range/min<sup>12</sup>: 14  
 Manufacturer<sup>5</sup>: HOLLAND COMPANY Purchased Density (lbs/gal)<sup>9</sup>: 10.3 Target Dose<sup>13</sup>: 18  
 Product Name<sup>6</sup>: PCH-180 Dilution Factor or Mix Ratio<sup>10</sup>: NA Alarm Setting (low)<sup>14</sup>: NA  
 Reason for Adding Chemical<sup>7</sup>: COAGULATION NSF Approved (Y/N)<sup>11</sup>: Y Alarm Setting (high)<sup>14</sup>: NA  
 Date of last anti-siphon valve inspection/replacement<sup>15</sup>: NA

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

Day	Treated Water <sup>19</sup> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>16</sup>	Chemical Dosage <sup>18</sup> (mg/L)	Parameters Measured <sup>20</sup> , Results, Units and Method <sup>20</sup> - (Grab or Continuous (A) Analyzer <sup>21</sup> )			O&M Notes/Comments <sup>22</sup>
		Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. RAW PH DAILY AVE	b.	c.	
1	2.8	125		1,288	18	7.10	<input type="checkbox"/> G <input type="checkbox"/> A	<input type="checkbox"/> G <input type="checkbox"/> A	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.
2	2.7	149		1,535	23	7.05			
3	2.8	136		1,401	20	6.95			
4	2.9	137		1,411	19	7.00			
5	2.6	130		1,339	20	6.90			
6	2.8	120		1,236	18	6.95			
7	2.8	120		1,236	18	7.00			
8	2.7	125		1,288	19	6.95			
9	2.8	117		1,205	17	7.05			
10	2.8	115		1,185	17	7.00			
11	2.8	120		1,236	18	6.95			
12	2.7	150		1,545	23	6.95			
13	2.9	134		1,380	19	7.10			
14	2.6	134		1,380	21	7.05			
15	2.7	130		1,339	20	7.05			
16	2.8	140		1,442	20	6.95			
17	2.8	114		1,174	17	7.00			
18	2.8	102		1,051	15	6.95			
19	2.8	117		1,205	17	7.00			
20	2.8	112		1,154	16	6.90			
21	2.8	113		1,164	17	7.10			
22	2.7	108		1,112	16	7.05			
23	2.8	111		1,143	16	7.00			
24	2.7	122		1,257	18	7.05			
25	2.7	109		1,123	17	7.00			
26	2.8	108		1,112	16	7.00			
27	2.8	116		1,195	17	6.95			
28	2.8	138		1,421	20	7.10			
29	2.8	138		1,421	20	7.10			
30	2.8	149		1,535	22	7.00			
31									
Total									

Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*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.)<sup>20</sup>.

a. Raw 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 & Date<sup>24</sup>:  
William C. [Signature] 12-1-2022  
 Print Name: William C. [Name] 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 <sup>1</sup> :	RANDOLPH-HOLBROOK JOINT WATER	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	4244001-DIT	Reporting Period <sup>2</sup> :	Month: Year:

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	CHLORINE	Purchased Strength <sup>8</sup> :	1.0	Target Range/min <sup>12</sup> :	0.20
Manufacturer <sup>5</sup> :	AXIALL, LLC	Purchased Density (lbs/gal) <sup>9</sup> :	12.3	Target Dose <sup>13</sup> :	NA
Product Name <sup>6</sup> :	CHLORINE	Dilution Factor or Mix Ratio <sup>10</sup> :	NA	Alarm Setting (low) <sup>14</sup> :	1.0
Reason for Adding Chemical <sup>7</sup> :	DISINFECTANT	NSF Approved (Y/N) <sup>11</sup> :	Y	Alarm Setting (high) <sup>14</sup> :	3.0
		Date of last anti-siphon valve inspection/replacement <sup>15</sup> :		NA	

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

Day	Treated Water <sup>16</sup>		Measured Chemical Used		Calculated Chemical Used (lbs) <sup>19</sup>	Chemical Dosage <sup>18</sup> (mg/l)	Parameters Measured <sup>20</sup> , Results, Units and Method <sup>21</sup> - (G)rab or Continuous (A)nalyzer <sup>22</sup>			O&M Notes/Comments <sup>22</sup>
	<input type="checkbox"/> Gallons <input checked="" type="checkbox"/> Mc	Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)	Chemical Dosage <sup>18</sup> (mg/l)			a. FREE CL <sub>2</sub> DAILY AVG	b. FREE CL <sub>2</sub> DAILY MAXIMUM	c.	
1		2.8	89	3.8	2.35	2.11				
2		2.7	84	3.7	2.30	1.99				
3		2.8	83	3.6	2.18	1.96				
4		2.9	87	3.6	2.12	2.02				
5		2.6	80	3.7	2.23	1.93				
6		2.8	83	3.6	2.09	1.95				
7		2.8	86	3.7	2.19	2.00				
8		2.7	88	3.9	2.24	1.76				
9		2.8	79	3.2	2.27	2.10				
10		2.8	84	3.6	2.13	1.95				
11		2.8	81	3.5	2.14	1.77				
12		2.7	85	3.8	2.11	1.78				
13		2.9	93	3.9	2.12	1.99				
14		2.6	90	4.2	2.27	2.09				
15		2.7	91	4.0	2.23	2.03				
16		2.8	86	3.7	2.36	2.07				
17		2.8	87	3.7	2.19	2.07				
18		2.8	83	3.6	2.21	2.07				
19		2.8	85	3.6	2.19	2.04				
20		2.8	85	3.6	2.09	1.89				
21		2.8	82	3.5	2.19	1.98				
22		2.7	87	3.9	1.99	1.19				
23		2.8	84	3.6	2.00	1.38				
24		2.7	82	3.6	2.04	1.91				
25		2.7	84	3.7	1.99	1.74				
26		2.8	72	3.1	1.91	1.80				
27		2.8	88	3.8	2.00	1.79				
28		2.8	85	3.6	1.99	1.74				
29		2.8	78	3.3	1.98	1.75				
30		2.8	78	3.3	2.05	1.67				
31										

Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

*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.) <sup>20</sup> :		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 & Date <sup>24</sup> :
a. Daily Coverage, Free Chlorine, Finished Water, Grab Sample		
b. Daily Minimum, Free Chlorine, Finished Water, Test Kit		
c.	Print Name:	Title:



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 <sup>1</sup> :	RANDOLPH-HOLBROOK JW	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	4244001-0TT	Reporting Period <sup>3</sup> :	NOVEMBER 2022
			Month	Year	

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	CALCIUM HYDROXIDE	Purchased Strength <sup>5</sup> :	0.85	Target Range/min <sup>12</sup> :	NA
Manufacturer <sup>6</sup> :	CARMEUSE LIME & STONE	Purchased Density (lbs/gal) <sup>5</sup> :	18.7	Target Dose <sup>13</sup> :	NA
Product Name <sup>7</sup> :	HYDRATED LIME	Dilution Factor or Mix Ratio <sup>10</sup> :	NA	Alarm Setting (low) <sup>14</sup> :	NA
Reason for Adding Chemical <sup>8</sup> :	PH ADJUSTMENT	NSF Approved (Y/N) <sup>11</sup> :	Y	Alarm Setting (high) <sup>14</sup> :	NA
			Date of last anti-siphon valve inspection/replacement <sup>15</sup> :	NA	

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

Day	Treated Water <sup>9</sup>	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>16</sup>	Chemical Dosage <sup>18</sup> (mg/L)	Parameters Measured <sup>19</sup> , Results, Units and Method <sup>20</sup> - (G)rab or Continuous (A)nalyzer <sup>21</sup>			O&M Notes/Comments <sup>22</sup>
	<input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (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		100		4.6	6.80			
2	2.6		100		4.6	6.80			
3	2.6		100		4.6	6.85			
4	2.6		100		4.6	6.80			
5	2.5		100		4.8	6.90			
6	2.6		100		4.6	6.90			
7	2.6		100		4.6	6.95			
8	2.6		100		4.6	6.85			
9	2.5		100		4.8	6.90			
10	2.5		100		4.8	6.90			
11	2.5		100		4.8	6.85			
12	2.5		100		4.8	6.95			
13	2.6		100		4.6	7.00			
14	2.4		100		5.0	7.05			
15	2.5		100		4.8	6.95			
16	2.5		100		4.8	7.00			
17	2.5		100		4.8	6.85			
18	2.5		100		4.8	6.80			
19	2.5		100		4.8	6.90			
20	2.5		100		4.8	7.00			
21	2.5		100		4.8	7.05			
22	2.5		100		4.8	7.00			
23	2.5		100		4.8	7.10			
24	2.6		100		4.6	7.00			
25	2.5		100		4.8	6.90			
26	2.5		100		4.8	6.90			
27	2.6		100		4.6	6.95			
28	2.6		100		4.6	6.95			
29	2.6		100		4.6	7.00			
30	2.6		100		4.6	7.00			
31			100						

Total \_\_\_\_\_ Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*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.)<sup>23</sup>:

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 & Date<sup>24</sup>:  
*William Cookery 12-1-2022*

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 <sup>1</sup> :	RANDOLPH-HOLBROOK JW	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	4244001-01T	Reporting Period <sup>3</sup> :	NOVEMBER 2022

**II. Chemical & Operational Information**

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

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

Day	Treated Water <sup>16</sup>		Measured Chemical Used		Calculated Chemical Used <sup>18</sup> (lbs) <sup>19</sup>	Chemical Dosage <sup>19</sup> (mg/L)	Parameters Measured <sup>20</sup> , Results, Units and Method <sup>20</sup> - (G)rab or Continuous (A)nalyzer <sup>21</sup>			O&M Notes/Comments <sup>22</sup>
	<input type="checkbox"/> Gallons	<input checked="" type="checkbox"/> MG	Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. FINISHED PH	b.	c.	
1		2.6		50	2.3	6.80	<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	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.
2		2.6		50	2.3	6.80	<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	
3		2.6		50	2.3	6.85	<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	
4		2.6		50	2.3	6.80	<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	
5		2.5		50	2.4	6.90	<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	
6		2.6		50	2.3	6.90	<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	
7		2.6		50	2.3	6.95	<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	
8		2.6		50	2.3	6.85	<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	
9		2.5		50	2.4	6.85	<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	
10		2.5		50	2.4	6.90	<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	
11		2.5		50	2.4	6.90	<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	
12		2.5		50	2.4	6.85	<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	
13		2.6		50	2.3	6.95	<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	
14		2.4		50	2.5	7.00	<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	
15		2.5		50	2.4	7.05	<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	
16		2.5		50	2.4	6.95	<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	
17		2.5		50	2.4	7.00	<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	
18		2.5		50	2.4	6.85	<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	
19		2.5		50	2.4	6.80	<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	
20		2.5		50	2.4	6.90	<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	
21		2.5		50	2.4	7.00	<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	
22		2.5		50	2.4	7.05	<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	
23		2.5		50	2.4	7.00	<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	
24		2.6		50	2.3	7.10	<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	
25		2.5		50	2.4	7.00	<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	
26		2.5		50	2.4	6.90	<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	
27		2.6		50	2.3	6.90	<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	
28		2.6		50	2.3	6.95	<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	
29		2.6		50	2.3	7.00	<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	
30		2.6		50	2.3	7.00	<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	
31				50						

Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*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.)<sup>20</sup>:

a. Finished 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 & Date<sup>24</sup>:  
 William Carter 12-1-2022

Print Name: William Carter 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>015/10300</u>	<u>RAW WATER/COMBINED FILTER EFFLUENT</u>	<u>11-7-2022</u>	<u>Myra Figueroa</u>
SAMPLE NOTES			

### II. COMPLIANCE CALCULATIONS

Month	# of Paired Samples	A: % Removal of TOC <sup>1</sup>	B: Required % Removal of TOC <sup>2</sup>	Met Alternative Compliance Criteria	Alternative Criteria Result(s) <sup>3</sup> (See Below)	A ÷ B <sup>4</sup>
<u>12-21</u>	<u>1</u>	<u>43</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.23</u>
<u>1-22</u>	<u>1</u>	<u>39</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.17</u>
<u>2-22</u>	<u>1</u>	<u>36</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.03</u>
<u>3-22</u>	<u>1</u>	<u>63</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.80</u>
<u>4-22</u>	<u>1</u>	<u>43</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.23</u>
<u>5-22</u>	<u>1</u>	<u>49</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.40</u>
<u>6-22</u>	<u>1</u>	<u>31</u>	<u>35</u>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<u>TWSUVA</u>	<u>1.00</u>
<u>7-22</u>	<u>1</u>	<u>37</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.06</u>
<u>8-22</u>	<u>1</u>	<u>29</u>	<u>35</u>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<u>TWSUVA</u>	<u>1.00</u>
<u>9-22</u>	<u>1</u>	<u>36</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.03</u>
<u>10-22</u>	<u>1</u>	<u>41</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.17</u>
<u>11-22</u>	<u>1</u>	<u>38</u>	<u>35</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO		<u>1.09</u>
Sum of Past 12 Months:						<u>14.21</u>
Compliance Value (Sum of Past 12 Months/ 12):						<u>1.18</u>

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  
 Date: 12-1-2022

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.

<sup>1</sup> Percent Removal:  $(1 - (\text{Treated Water TOC} \div \text{Raw Water TOC})) \times 100$ . 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).

<sup>2</sup> From table at 310 CMR 22.07E(10)(b)2.

<sup>3</sup> 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 <sub>3</sub> ) 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 <sub>3</sub> )	SOFT60	RAA of treated water alkalinity
Softening that removes ≥ 10 mg/L (as CaCO <sub>3</sub> ) of hardness	SOFT10	RAA of hardness (as CaCO <sub>3</sub> ) removal

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

<sup>4</sup> 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 _____	<u>1</u>



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

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

PWS ID #:  City / Town:

PWS Name:  PWS Class: COM  NTNC  TNC

DEP LOCATION (LOC) ID#	DEP Location Name	Sample Information		Date Collected		Collected By
				Date	Time	
A 01S	Great Pond WTP - Raw Water	<input type="checkbox"/> (M)ultiple <input checked="" type="checkbox"/> (S)ingle	<input checked="" type="checkbox"/> (R)aw <input type="checkbox"/> (F)inished	11/07/2022	09:00	Myrna Figueroa
B 10300	Combined Filter Effluent	<input type="checkbox"/> (M)ultiple <input checked="" type="checkbox"/> (S)ingle	<input type="checkbox"/> (R)aw <input checked="" type="checkbox"/> (F)inished	11/07/2022	09:00	Myrna Figueroa
Routine or Special Sample		Original, Resubmitted or Confirmation Report		If Resubmitted Report, list below:		
				(1) Reason for Resubmission		(2) Collection Date of Original Sample
A	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction			
B	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction			
SAMPLE NOTES						
A						
B						

**II. ANALYTICAL LABORATORY INFORMATION:**

Primary Lab MA Cert. #:  Primary Lab Name:  Subcontracted?(Y/N)   
 Analysis Lab MA Cert. #:  Analysis Lab Name:

TOC Analyzed by (check one):  PWS or  Lab      Samples Acidified?  Yes or  No

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#
A 4.81		0.500	0.500	1	5310B	11/09/2022	A2K0224-01	
B 3.00		0.500	0.500	1	5310B	11/09/2022	A2K0224-02	

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.  
 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.  
 Surface or GWUDI sources using conventional filtration shall each month (unless monitoring is reduced): take one TOC sample at each treatment plant no later than the point of combined filter effluent turbidity monitoring representative of the treated (finished) water, one TOC source (raw) sample prior to any treatment, and one alkalinity source (raw) water sample - at a time representative

Alkalinity Analyzed by (check one):  PWS or  Lab

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#
A 25.0		4.0			2320B	11/14/2022	A2K0224-01	A2K0224-01
B								

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

LAB SAMPLE COMMENTS	Result Qualifier	Result Qualifier Description
A Alkalinity analyzed by primary lab		
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: 11/21/2022

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

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



**CERTIFICATE OF ANALYSIS**

Chris Pelletieri  
 Randolph - Holbrook Joint Water Board  
 50 North Franklin Street  
 Holbrook, MA 02343

Project Name: DOC SUVA  
 Work Order Number: A2K0231  
 Date Received: 11/07/2022

Sampled By: Myrna Figueroa  
 Location: Raw Water

Date Sampled: 11/7/22 9:00  
 Matrix: Surface Water

**RESULTS OF ANALYSIS**

Parameter	Analytical Method	Date Analyzed	Units	Detection Limit	DW MCL / Recommended Limit #	Result
<i>Test Parameters</i>				LAB-ID#: <u>A2K0231-01</u>		
Dissolved Organic Carbon (Average)	5310B	11/9/2022	mg/L	0.500	--	4.44
SUVA	4153	11/9/2022	/100 ml	N/A	--	0.0207
UV 254	5910B	11/8/2022	abs/cm	0.002	--	0.091

Sampled By: Myrna Figueroa  
 Location: Combined Filter Effluent

Date Sampled: 11/7/22 9:00  
 Matrix: Drinking Water

**RESULTS OF ANALYSIS**

Parameter	Analytical Method	Date Analyzed	Units	Detection Limit	DW MCL / Recommended Limit #	Result
<i>Test Parameters</i>				LAB-ID#: <u>A2K0231-02</u>		
Dissolved Organic Carbon (Average)	5310B	11/9/2022	mg/L	0.500	--	2.96
SUVA	4153	11/9/2022	/100 ml	N/A	--	0.0179
UV 254	5910B	11/8/2022	abs/cm	0.002	--	0.053

NA = Not Applicable  
 ND = Not Detected  
 <= Less Than  
 >= Greater Than

Approved By: *Samuel Stoddard*

**Work Order Narrative:**

No unusual observations noted.

**Subcontracted Analyses:**

ESS Laboratory - Cranston, RI (M-RI002)

Dissolved Organic Carbon 5310B; UVA.254

**REVIEWED**  
 By mgargasz at 7:39 pm, Nov 15, 2022





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

SWTR

(Page 2 of 2)

DAILY REPORTING

Day	Filter Number: 1		Filter Number: 2		Filter Number: 3		Filter Number: 4	
	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU
1	.10	.05	.09	.06	.08	.04	.10	.04
2	.07	.05	.08	.05	.12	.06	.03	.04
3	.03	-	.03	-	.07	.06	.10	.03
4	.12	.06	.11	.08	.07	.06	.12	.06
5	.08	.07	.10	.07	.06	.05	.12	.06
6	.10	.08	.09	.07	.09	.06	.03	-
7	.03	-	.04	-	.04	-	.08	.06
8	.11	.07	.08	.08	.06	.04	.17	.05
9	.06	.05	.08	.06	.11	.07	.11	.06
10	.07	.05	.07	.05	.06	.05	.04	-
11	.04	-	.04	-	.04	-	.06	.05
12	.12	.07	.09	.06	.10	.07	.08	.04
13	.09	.06	.14	.07	.05	.04	.13	.06
14	.10	.07	.10	.07	.07	.06	.03	-
15	.03	-	.04	-	.03	-	.13	.05
16	.12	.07	.08	.06	.10	.06	.11	.05
17	.11	.07	.07	.06	.10	.06	.11	.05
18	.12	.08	.06	.06	.11	.07	.04	-
19	.03	-	.04	-	.03	-	.15	.04
20	.11	.06	.05	.05	.06	.03	.11	.04
21	.11	.08	.05	.05	.14	.07	.13	.05
22	.10	.06	.08	.06	.13	.06	.05	-
23	.03	-	.04	-	.04	-	.15	.04
24	.11	.05	.08	.06	.11	.05	.20	.04
25	.08	.05	.06	.05	.16	.07	.16	.07
26	.08	.06	.07	.06	.18	.08	.20	-
27	.03	-	.04	-	.05	-	.22	.07
28	.11	.07	.17	.10	.24	.10	.18	.05
29	.06	.04	.09	.06	.07	.06	.16	.05
30	.10	.07	.05	.04	.06	.05	.10	-
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 Cook  
 Date: 12-3-2022 Title: Chief Operator



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

SWTR

(Page 2 of 2)

**DAILY REPORTING**

Day	Filter Number: 5		Filter Number: 6		Filter Number: 7		Filter Number: 8	
	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU
1	.10	.06	.19	.06	.03	—	.17	.04
2	.03	—	.05	—	.07	.04	.09	.06
3	.10	.04	.13	.06	.11	.06	.13	.06
4	.20	.07	.15	.07	.12	.06	.13	.06
5	.15	.06	.03	—	.04	—	.14	.06
6	.03	—	.05	.04	.12	.05	.14	.08
7	.11	.06	.18	.06	.12	.06	.10	.08
8	.16	.06	.07	.04	.09	.05	.10	.08
9	.15	.07	.03	—	.04	—	.10	.06
10	.03	—	.12	.06	.13	.06	.17	.06
11	.14	.06	.10	.06	.12	.06	.13	.06
12	.16	.07	.18	.06	.12	.06	.13	.06
13	.08	.05	.03	—	.12	.07	.10	.06
14	.04	—	.20	.07	.10	.06	.17	.07
15	.20	.07	.11	.06	.14	.07	.11	.06
16	.13	.07	.10	.05	.13	.06	.16	.07
17	.14	.06	.03	—	.04	—	.10	.06
18	.03	—	.12	.07	.13	.06	.13	.07
19	.18	.07	.09	.08	.17	.06	.17	.08
20	.15	.06	.13	.07	.15	.06	.16	.08
21	.12	.06	.03	—	.04	—	.10	.06
22	.03	—	.19	.06	.12	.07	.14	.07
23	.17	.07	.20	.04	.08	.05	.16	.07
24	.13	.06	.14	.05	.10	.06	.11	.05
25	.11	.07	.09	—	.10	.06	.10	.04
26	.03	—	.15	.05	.11	.07	.13	.07
27	.19	.07	.20	.05	.12	.08	.11	.06
28	.20	.07	.16	.04	.12	.08	.13	.07
29	.14	.06	.07	—	.10	.06	.10	.04
30	.03	—	.13	.06	.19	.10	.11	.06
31					.21	.08	.12	.06

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 sign this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: William Cookley  
 Date: 12-3-2022 Title: Chief Operator



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

Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

Notes:

DEP APPROVED SAMPLE SITE INFORMATION <sup>1</sup>		CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup>		COLLECTED AND ANALYZED BY:
DEP Sample Type <sup>1a</sup>	DEP Location Code # <sup>1</sup>		DATE	TIME	
RS	001	1.16	11/7/2022	07:35	T. Duggan
RS	004	1.30	11/7/2022	08:00	T. Duggan
RS	008E	.03	11/7/2022	09:05	T. Duggan
RS	006	.22	11/7/2022	07:05	T. Duggan
RS	001	1.08	11/14/2022	07:30	J. Maclane
RS	004	1.19	11/14/2022	08:30	J. Maclane
RS	008E	.03	11/14/2022	09:00	J. Maclane
RS	006	.16	11/14/2022	08:05	J. Maclane
RS	001	1.25	11/21/2022	07:30	J. Maclane
RS	004	1.24	11/21/2022	08:20	J. Maclane
RS	008E	.02	11/21/2022	09:00	J. Maclane
RS	006	.10	11/21/2022	07:50	J. Maclane
RS	001	1.10	11/28/2022	07:30	J. Maclane
RS	004	1.14	11/28/2022	08:00	J. Maclane
RS	008E	.09	11/28/2022	08:50	J. Maclane
RS	006	.54	11/28/2022	08:50	J. Maclane

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> 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.  
<sup>3</sup> 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).  
<sup>4</sup> 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).  
<sup>5</sup> 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<sup>5</sup>:

66

Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L):

1.09

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]* 12-1-2022

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 #: **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 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  ASTM D1253-86

Notes:

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP Approved Sample Location <sup>1</sup>	CHLORINE RESULT <sup>7</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup>		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.90	11/2/92	10:00 AM	A. PIERRE-BOUS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.18		7:30 AM	
RS	005	MARTIN E. YOUNG - 30 LOU COURTNEY DRIVE	1.00		9:00 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.59		11:00 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - 225 HIGH ST	1.73		10:30 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.62		9:30 AM	
RS	012	7 - 11 FOOD SHOP - 675 NORTH STREET	.74		8:00 AM	
RS	014 AE	AXP AUTO - 317 NORTH MAIN ST	1.86		8:30 AM	
RS	016	OAK GROVE STANDPIPE	1.16		9:15 AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.96		8:45 AM	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> 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.  
<sup>3</sup> 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).  
<sup>4</sup> 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).  
<sup>5</sup> 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<sup>5</sup>: **66** Average Chlorine Result of All Samples For Month<sup>6</sup> (mg/L): **1.09**

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.

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]* 12-1-2002

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 #: **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 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  ASTM D1253-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type <sup>1</sup>	DEP Location Code # <sup>2</sup>	DEP Approved Sample Location <sup>1</sup>	CHLORINE RESULT <sup>3</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>5</sup> :		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.54	11-7-22	10:25 AM	JASON PETERSON
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.17		7:20 AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	0.90		8:20 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.46		11:25 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.60		10:50 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.27		9:40 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	0.08		7:50 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	1.66		9:05 AM	
RS	014A	HXP AUTO North Main St	1.12		10:00 AM	
RS		OAK GROVE STANDPIPE				
RS		SOUTH MAIN STREET STANDPIPE	1.03		8:35 AM	

<sup>1</sup> DEP Sample Type. Location Code# and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> 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.  
<sup>3</sup> 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).  
<sup>4</sup> 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).  
<sup>5</sup> 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<sup>6</sup>: **66**

Average Chlorine Result of All Samples For Month<sup>6</sup> (mg/L): **1.09**

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.

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]*  
 Date: **12-1-2022**

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 #: **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 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  ASTM D1253-86

Notes:

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP APPROVED SAMPLE SITE INFORMATION <sup>1</sup>	DEP Approved SAMPLE LOCATION <sup>1</sup>	CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> DATE	TIME	COLLECTED AND ANALYZED BY
RS	003	TOWER HILL SCHOOL - ADAMS STREET		1.56	11/14/22	10:00 AM	A. PIERRE LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE		1.36		7:30 AM	
RS	005	MARTINE E. YOUNG - 30 LOU COURTNEY DRIVE		.96		8:30 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET		1.81		11:00 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - 225 HIGH ST		1.64		10:30 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE		1.41		9:30 AM	
RS	012	7 - 11 FOOD SHOP - 675 NORTH STREET		.59		9:00 AM	
RS	014 AE	AXP AUTO - 317 NORTH MAIN ST		1.63		8:00 AM	
RS	016	OAK GROVE STANDPIPE		.88		12:00 PM	
RS	017	SOUTH MAIN STREET STANDPIPE		.85		9:15 AM	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> SWTR systems: HFC 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.  
<sup>3</sup> 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).  
<sup>4</sup> 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).  
<sup>5</sup> 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<sup>5</sup>: 66 Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): 1.09

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.

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.

DEP Review Status:  Accepted  Disapproved Review Comments: Primary Certified Operator Signature and Date: [Signature] 12-1-2022



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

CI

**I. 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 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 D1283-86

Notes:

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP Approved Sample Location <sup>1</sup>	CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup>		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.61	11/21/22	10:00am	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.53		7:30am	
RS	005	MARTINE E. YOUNG - 30 LOU COURTNEY DRIVE	1.09		9:00am	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.78		11:00am	
RS	008	COMMUNITY MIDDLE SCHOOL - 225 HIGH ST	1.69		10:30am	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.33		9:30am	
RS	012	7 - 11 FOOD SHOP - 675 NORTH STREET	.91		8:00am	
RS	014 AE	AXP AUTO - 317 NORTH MAIN ST	1.59		8:30am	
RS	016	OAK GROVE STANDPIPE	.73		9:45am	
RS	017	SOUTH MAIN STREET STANDPIPE	.91		8:45am	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> 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.  
<sup>3</sup> 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).  
<sup>4</sup> 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).  
<sup>5</sup> All DISTRIBUTION samples taken and analyzed 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<sup>5</sup>: 6 Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): 1.09

In accordance with 310 CMR 22.15(2), if mailing paper reports, TVO 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.

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] 12-1-2022

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 #: **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 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  ASTM D1253-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP Approved Sample Location <sup>1</sup>	CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup>		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.45	11/28/22	10:00 AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.41		7:30 AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	.95		9:00 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.53		11:00 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.39		10:30 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.24		9:30 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.27		8:30 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAIN STREET	1.37		8:00 AM	
RS	049C	WATER - 317 NORTH MAIN STREET	.87		9:15 AM	
RS		OAK GROVE STANDPIPE				
RS		SOUTH MAIN STREET STANDPIPE	.85		8:45 AM	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> 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.  
<sup>3</sup> 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).  
<sup>4</sup> 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).  
<sup>5</sup> 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<sup>5</sup>: **66** Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **1.09**

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 (eDER) deadline is the same as above.

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]* 12-1-2022

DEP Review Status:  Accepted  Disapproved Review Comments: