



**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**

August 13, 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, SUVA  
Chemical Addition Reports  
DBPR Compliance Report  
JULY, 2021 Randolph/Holbrook  
Joint Water System, PWS #424001

Gentlemen:

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

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

G

I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: RANDOLPH-HOLEBROOK JOINT WATER PWS Town: RANDOLPH
Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period -> Month: JULY 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).
186 = A Total # of filtered water turbidity measurements for month (SWTR - Form F)
186 = 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] "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: 0 # HPC sites > 500/mL: 0 # HPC sites <= 500/mL: 0
66 = 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 DATE: [Signature] Authorized Signature: William Cooker, Chief Operator



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

SWTR  
F

PWS INFORMATION

PWSID#: 4144001 PWS Name: RANDOLPH-HALBROOK JOINT WATER PWS Town: RANDOLPH  
 Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: JULY Year: 2021

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
	.05	6	6	0
	.06	6	6	0
	.06	6	6	0
	.05	6	6	0
	.07	6	6	0
	.04	6	6	0
	.05	6	6	0
	.06	6	6	0
	.06	6	6	0
	.05	6	6	0
	.08	6	6	0
	.06	6	6	0
	.04	6	6	0
	.06	6	6	0
	.06	6	6	0
	.05	6	6	0
	.04	6	6	0
	.04	6	6	0
	.05	6	6	0
	.05	6	6	0
	.04	6	6	0
	.04	6	6	0
	.04	6	6	0
	.05	6	6	0
	.07	6	6	0
	.09	6	6	0
	.07	6	6	0
	.07	6	6	0
	.06	6	6	0
Totals		186	186	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 intervals 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

Unauthorized disclosure of this information is prohibited. This information is for official use only. It is not to be disseminated to the public.

PWS Authorized Signature: Melissa Cook  
 Date: 8-2-2021 Title: Chief Plant Operator



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: JULY Year: 2021  
 Disinfectant: Chlorine Gas/Faster 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	1.84	50	92	6.05	20.1	11	8.4	<input type="checkbox"/> Yes
2	2,400	2.12	50	106	6.00	19.0	11	9.6	<input type="checkbox"/> Yes
3	2,400	2.17	50	108.5	5.90	19.7	11	9.9	<input type="checkbox"/> Yes
4	2,400	2.19	50	109.5	5.90	19.9	11	10.0	<input type="checkbox"/> Yes
5	2,400	2.18	50	109	6.10	19.0	11	9.9	<input type="checkbox"/> Yes
6	2,400	2.06	50	103	6.00	20.7	11	9.4	<input type="checkbox"/> Yes
7	2,400	1.91	50	95.5	6.05	20.9	11	8.7	<input type="checkbox"/> Yes
8	2,400	2.07	50	103.5	5.85	19.8	11	9.4	<input type="checkbox"/> Yes
9	2,400	2.04	50	102	5.90	19.0	11	9.3	<input type="checkbox"/> Yes
10	2,400	2.05	50	102.5	6.10	18.6	11	9.3	<input type="checkbox"/> Yes
11	2,400	2.02	50	101	6.05	19.0	11	9.2	<input type="checkbox"/> Yes
12	2,400	1.99	50	99.5	6.05	19.3	11	9.1	<input type="checkbox"/> Yes
13	2,400	2.00	50	100	5.90	18.6	11	9.1	<input type="checkbox"/> Yes
14	2,400	1.80	50	90	6.00	19.0	11	8.2	<input type="checkbox"/> Yes
15	2,400	2.10	50	105	6.10	19.8	11	9.6	<input type="checkbox"/> Yes
16	2,400	2.27	50	113.5	6.05	20.2	11	10.3	<input type="checkbox"/> Yes
17	2,400	1.83	50	91.5	5.90	20.1	11	8.3	<input type="checkbox"/> Yes
18	2,400	1.85	50	92.5	5.95	20.4	11	8.4	<input type="checkbox"/> Yes
19	2,400	1.76	50	88	6.10	20.0	11	8.0	<input type="checkbox"/> Yes
20	2,400	2.04	50	102	6.20	20.3	11	9.3	<input type="checkbox"/> Yes
21	2,400	1.82	50	91	6.15	20.1	11	8.3	<input type="checkbox"/> Yes
22	2,400	2.05	50	102.5	6.00	20.0	11	9.3	<input type="checkbox"/> Yes
23	2,400	1.90	50	95	6.20	20.1	11	8.6	<input type="checkbox"/> Yes
24	2,400	1.83	50	91.5	6.10	20.4	11	8.3	<input type="checkbox"/> Yes
25	2,400	1.87	50	93.5	6.15	20.5	11	8.5	<input type="checkbox"/> Yes
26	2,400	1.77	50	88.5	6.00	20.5	11	8.1	<input type="checkbox"/> Yes
27	2,400	1.94	50	97	6.10	20.6	11	8.8	<input type="checkbox"/> Yes
28	2,400	1.83	50	91.5	6.10	19.4	11	8.3	<input type="checkbox"/> Yes
29	2,400	1.99	50	99.5	6.00	19.9	11	9.1	<input type="checkbox"/> Yes
30	2,400	2.01	50	100.5	6.05	20.0	11	9.1	<input type="checkbox"/> Yes
31	2,400	1.98	50	99	5.90	20.3	11	9.0	<input type="checkbox"/> Yes

1. 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.
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: William Wodarski  
 Date: 8-2-2021 Title: Chief Plant 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> :	4244001-01A	Reporting Period <sup>2</sup> :	JULY 2021
				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>16</sup> <input type="checkbox"/> Gallons <input type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>18</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>
		Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. RAW PA DAILY AVE	b.	c.	
						<input 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.
1	2.8	125		1.288	18	6.90			
2	2.8	106		1.082	15	6.85			
3	2.8	150		1.545	22	6.80			
4	2.8	169		1.741	25	6.85			
5	2.8	146		1.504	21	6.85			
6	2.8	157		1.617	23	6.95			
7	2.4	95		979	16	6.90			
8	2.8	105		1.082	15	6.90			
9	2.8	125		1.236	18	6.85			
10	2.8	105		1.082	15	6.80			
11	2.8	117		1.205	17	6.80			
12	2.8	124		1.277	18	6.95			
13	2.8	130		1.339	19	6.95			
14	2.8	140		1.442	20	7.05			
15	2.8	130		1.339	19	6.85			
16	2.8	123		1.267	18	6.90			
17	2.8	134		1.380	20	6.90			
18	2.8	156		1.607	23	6.80			
19	2.8	140		1.442	20	6.85			
20	2.8	130		1.339	19	6.90			
21	2.8	170		1.757	25	6.95			
22	2.7	130		1.339	20	7.00			
23	2.8	124		1.277	18	7.05			
24	2.8	143		1.473	21	7.00			
25	2.7	146		1.504	22	6.90			
26	2.8	148		1.524	22	6.95			
27	2.8	160		1.545	22	7.00			
28	2.8	130		1.339	19	7.05			
29	2.8	150		1.545	22	6.95			
30	2.6	130		1.339	20	7.00			
31	2.8	146		1.504	21	7.00			
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.*

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 Cookerly 8-2-2021*

Print Name: *William Cookerly* Title: *Chief Operator*



**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> :	4244001-01T	Reporting Period <sup>2</sup> :	JULY 2021

**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>6</sup> :	AXIALI, 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>18</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) FREE CL FINISHED DAILY AVG			b) FREE CL FINISHED DAILY AVG		c.		
				<input type="checkbox"/> G <input type="checkbox"/> A			<input type="checkbox"/> G <input type="checkbox"/> A	<input type="checkbox"/> G <input type="checkbox"/> A			
1	2.8		94	4.0	2.09	1.84					
2	2.8		93	4.0	2.24	2.12					
3	2.8		90	3.9	2.39	2.17					
4	2.8		89	3.8	2.33	2.19					
5	2.8		87	3.7	2.30	2.18					
6	2.4		80	4.2	2.22	2.06					
7	2.8		90	3.9	2.05	1.91					
8	2.8		81	3.5	2.24	2.07					
9	2.8		90	3.9	2.19	2.04					
10	2.8		91	3.9	2.31	2.05					
11	2.8		91	3.9	2.25	2.02					
12	2.8		91	3.9	2.22	1.99					
13	2.8		97	4.2	2.35	2.00					
14	2.8		95	4.1	2.25	1.80					
15	2.8		95	4.1	2.36	2.10					
16	2.8		94	4.0	2.41	2.27					
17	2.8		88	3.8	2.14	1.83					
18	2.8		85	3.6	2.16	1.85					
19	2.8		82	3.5	2.09	1.76					
20	2.8		93	4.0	2.24	2.04					
21	2.8		94	4.0	2.21	1.82					
22	2.7		90	4.0	2.22	2.05					
23	2.8		91	3.9	2.09	1.90					
24	2.8		94	4.0	2.07	1.83					
25	2.7		88	3.9	2.04	1.87					
26	2.8		89	3.8	2.06	1.77					
27	2.8		94	4.0	2.23	1.94					
28	2.8		90	3.9	2.12	1.83					
29	2.8		87	3.7	2.16	1.99					
30	2.6		89	4.1	2.16	2.01					
31	2.8		100	4.3	2.27	1.98					

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. Daily Average, Free Chlorine, Finished Water, Grab Sample, Test Kit

b. Daily Minimum, 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 & Date<sup>24</sup>:

*William Cookery* 8-2-2021

Print Name: *William Cookery* Chief Plant 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>2</sup> :	JULY 2021 Month Year

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	CALCIUM HYDROXIDE	Purchased Strength <sup>8</sup> :	0.85	Target Range/min <sup>12</sup> :	NA
Manufacturer <sup>6</sup> :	CARMEUSE LIME & STONE	Purchased Density (lbs/gal) <sup>8</sup> :	13.7	Target Dose <sup>13</sup> :	NA
Product Name <sup>6</sup> :	HYDRATED LIME	Dilution Factor or Mix Ratio <sup>10</sup> :	NA	Alarm Setting (low) <sup>14</sup> :	NA
Reason for Adding Chemical <sup>7</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>18</sup>		Measured Chemical Used		Calculated Chemical Used (lbs) <sup>16</sup>	Chemical Dosage <sup>18</sup> (mg/L)	Parameters Measured <sup>4</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 type="checkbox"/> MG	Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. FINISHED PH	b.	c.		
1	2.8						6.55				
2	2.8						6.60				
3	2.6						6.65				
4	2.5						6.50				
5	2.6						6.50				
6	2.6						6.45				
7	2.3						6.50				
8	2.7						6.40				
9	2.7						6.45				
10	2.6						6.45				
11	2.6						6.50				
12	2.7		100		4.4		6.80				NEW FEED LINE INSTALLED
13	2.7		100		4.4		6.80				
14	2.6		100		4.6		6.85				
15	2.7		100		4.4		6.95				
16	2.7		100		4.4		6.95				
17	2.7		100		4.4		7.00				
18	2.6		100		4.6		7.00				
19	2.6		100		4.6		7.05				
20	2.7		100		4.4		7.00				
21	2.7		100		4.4		7.05				
22	2.7		100		4.4		6.90				
23	2.6		100		4.6		6.90				
24	2.7		100		4.4		6.95				
25	2.7		100		4.4		6.90				
26	2.7		100		4.4		6.90				
27	2.7						6.45				VIBRO FOR FEEDER BURNED OUT
28	2.7						6.60				
29	2.6						6.50				
30	2.5						6.40				
31	2.7						6.45				

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. Finished Water, 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 Coakley 8-2-2021

Print Name: William Coakley 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>2</sup> :	JULY 2021 Month Year

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	SODIUM BISULFATE	Purchased Strength <sup>8</sup> :	10.15	Target Range/min <sup>12</sup> :	NA
Manufacturer <sup>5</sup> :	CARUS CORPORATION	Purchased Density (lbs/gal) <sup>9</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> :			

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

Day	Treated Water <sup>16</sup> <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>18</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>  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 <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	
1	2.8		50		2.1	6.55			
2	2.7		50		2.2	6.60			
3	2.6		50		2.3	6.65			
4	2.5		50		2.4	6.50			
5	2.6		50		2.3	6.50			
6	2.6		50		2.3	6.45			
7	2.3		50		2.6	6.50			
8	2.7		50		2.2	6.40			
9	2.7		50		2.2	6.45			
10	2.6		50		2.3	6.45			
11	2.6		50		2.3	6.50			
12	2.7		50		2.2	6.80			
13	2.7		50		2.2	6.80			
14	2.6		50		2.3	6.85			
15	2.7		50		2.2	6.95			
16	2.7		50		2.2	6.95			
17	2.7		50		2.2	7.00			
18	2.6		50		2.3	7.00			
19	2.6		50		2.3	7.05			
20	2.7		50		2.2	7.00			
21	2.7		50		2.2	7.05			
22	2.7		50		2.2	6.90			
23	2.6		50		2.3	6.90			
24	2.7		50		2.2	6.95			
25	2.7		50		2.2	6.90			
26	2.7		50		2.2	6.90			
27	2.7		50		2.2	6.45			
28	2.6		50		2.3	6.60			
29	2.6		50		2.3	6.50			
30	2.5		50		2.4	6.40			
31	2.7		50		2.2	6.45			

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. Finished Water, 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 Carter  
 Print Name: William Carter Title: Chief Plant Operator



Total Organic Carbon (TOC) Report

**I. 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  NTNC  TNC

DEP LOCATION (LOC) ID#	DEP Location Name	Sample Information		Date Collected		Collected By
		<input type="checkbox"/> (M)ultiple <input checked="" type="checkbox"/> (S)ingle	<input checked="" type="checkbox"/> (R)aw <input type="checkbox"/> (F)inished	Date	Time	
A 01S	Great Pond WTP - Raw Water	<input checked="" type="checkbox"/> (S)ingle	<input checked="" type="checkbox"/> (R)aw	07/07/2021	09:00	Bill Cookerly
B 10300	Combined Filter Effluent	<input checked="" type="checkbox"/> (S)ingle	<input checked="" type="checkbox"/> (F)inished	07/07/2021	09:00	Bill Cookerly

  

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 - (Such as, if a Manifold/Multiple sample, list any sources that were on-line during sample collection).

A

B

**II. ANALYTICAL LABORATORY INFORMATION:**

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

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

TOC Result (mg/L)	MDL (mg/L)	Lab Method	Date Analyzed	Analysis Lab MA Cert#	Analysis Lab Name	Lab Sample ID#
A 4.99	0.500	5310B	07/09/2021	M-RJ002	ESS Laboratory	A1G0148-01
B 2.88	0.500	5310B	07/09/2021	M-RJ002	ESS Laboratory	A1G0148-02

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 of normal operating conditions and influent water quality.

Alkalinity Analyzed by (check one):  PWS or  Lab

Alkalinity Result (mg/L as CaCO3)	MDL (mg/L)	Lab Method	Date Analyzed	Analysis Lab MA Cert#	Analysis Lab Name	Lab Sample ID#
A 24.0	4.0	2320B	07/16/2021	M-MA022	Analytical Balance Corporation	A1G0148-01
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 NOTES

A

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: 8/2/2021

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 as above.

DEP REVIEW STATUS (Initial & Date)

Accepted  Disapproved

Review Comments

WQTS Data Entered



# 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 (LOG) ID#	DEP Location Name	Date Collected	Collected By
<u>015/10300</u>	<u>RAW WATER/COMBINED FILTER EFFLUENT</u>	<u>7-7-2021</u>	<u>Bill Cooksey</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>
8-20	1	31	35	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	TWSUVA	1.00
9-20	1	35	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.00
10-20	1	33	35	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	TWSUVA	1.00
11-20	1	32	35	<input type="checkbox"/> YES <input type="checkbox"/> NO	TWSUVA	1.00
12-20	1	42	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.20
1-21	1	43	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.23
2-21	1	38	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.09
3-21	1	38	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.09
4-21	1	35	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.00
5-21	1	42	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.20
6-21	1	38	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.09
7-21	1	42	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.20
				<input type="checkbox"/> YES <input type="checkbox"/> NO		
Sum of Past 12 Months:						13.10
Compliance Value (Sum of Past 12 Months/ 12):						1.09

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

PWS Authorized Signature: Bill Cooksey

Date: 8-10-2021

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.

<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 =  $(\text{Average of Set 1} + \text{Average of Set 2}) \div 2$ ).

<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 _____	



CERTIFICATE OF ANALYSIS

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

Project Name: DOC SUVA N/A  
Work Order Number: A1G0149  
Date Received: 07/07/2021

Sampled By: Bill Cookerly  
Location: Raw Water

Date Sampled: 7/7/21 9:00  
Matrix: Drinking Water

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL/ Rec. Limit#	Result
<i>Test Parameters</i>						
				LAB-ID#: <b>A1G0149-01</b>		
Dissolved Organic Carbon (Average)	5310B	7/9/2021	mg/L	0.500	—	4.86
UV 254	5910B	7/8/2021	abs/cm	0.002	—	0.093

Sampled By: Bill Cookerly  
Location: Combined Filter Effluent

Date Sampled: 7/7/21 9:00  
Matrix: Drinking Water

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL/ Rec. Limit#	Result
<i>Test Parameters</i>						
				LAB-ID#: <b>A1G0149-02</b>		
Dissolved Organic Carbon (Average)	5310B	7/9/2021	mg/L	0.500	—	2.99
UV 254	5910B	7/8/2021	abs/cm	0.002	—	0.057

NA = Not Applicable  
ND = Not Detected  
< - Less Than  
\* = Detection Limit

Approved By: *Lanely H. Hood*  
Lab Director

1. MCL = Maximum Contaminant Level as adopted by the Commonwealth of Massachusetts and represents the maximum acceptable level in drinking water.
2. Recommended limits are suggested levels of materials allowed in water. These may be for aesthetic reasons rather than for human health.
3. Currently there are no limits (recommended or mandated) for this parameter. This is merely presented for guidance.
4. If present, coliform values (in parentheses) are defined as estimated numbers.

**REVIEWED**  
By EBaanante at 2:44 pm, Jul 27, 2021



Massachusetts Department of Environmental Protection - Drinking Water Program

TURBIDITY - INDIVIDUAL FILTER MONITORING
For Conventional or Direct Filtered Systems

SWTR
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PWS INFORMATION

PWS ID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: Randolph
Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period: Month: Jul Year: 2021
Total # of Filters at Treatment Plant: 8

II. MONTHLY REPORTING

Filtered Water Turbidity Measured: [X] Individual Filter Effluent (IFE) or [ ] Combined Filter Effluent (CFE)2
Analytical Method: [ ] SM 2130B [ ] EPA 180.1 [ ] GLI Method 2 (Great Lakes)

Table with 7 rows of monitoring questions and their answers. Questions include: 'Was each filter monitored continuously?', 'Were measurements recorded every 15 minutes?', 'Was there a failure of continuous turbidity monitoring equipment?', 'Were individual filter levels greater than 1.0 NTU in two consecutive measurements?', 'Were individual filter levels greater than 0.5 NTU in two consecutive measurements after the filter has been online for more than 4 hours?', 'Were individual filter levels greater than 1.0 NTU in two consecutive measurements in three consecutive months?', 'Were individual filter levels greater than 2.0 NTU in two consecutive measurements in two consecutive months?'.

For each "Yes" response to question #4, #5, #6, or #7 above: Report the following information in the table below.

Table with 4 columns: Filter #, Turbidity Result (NTU), Date, Reason for Exceedance (if known). Includes instruction: Attach additional documents as necessary for detailed explanations.



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

SWTR  
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III. 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	0.051356	0.063993	0.058909	0.047641	0.057953	0.118596	0.085031	0.080867
2	0.111581	0.117262	0.073354		0.078470		0.088192	
3	0.029741		0.083559	0.097089	0.027693	0.060960	0.048997	0.054764
4	0.050181	0.060535	0.048492	0.043080	0.060072	0.052314	0.054757	0.057809
5	0.035028	0.049325	0.023589		0.028036		0.034914	
6	0.031895		0.037110	0.053533	0.043471	0.048826	0.052901	0.044868
7	0.055066	0.060159	0.184686	0.248431	0.038586	0.055078	0.097134	
8	0.076127		0.087444		0.085012		0.104963	
9	0.069346		0.036846		0.087262		0.079954	0.065542
10	0.050451	0.051526	0.063895	0.061079	0.065199	0.075587	0.041903	
11	0.040476		0.037127		0.043464		0.061871	0.064128
12	0.072939	0.062411	0.052915	0.051467	0.055265	0.087384	0.062259	0.071540
13	0.057395	0.052940	0.033291	0.164159	0.066341	0.056091	0.070002	0.073199
14	0.105433	0.095425	0.074503	0.060288	0.055434		0.049196	
15	0.036503		0.034961		0.056552	0.068233	0.038117	0.081436
16	0.047924	0.052610	0.074802	0.057433	0.053657	0.056498	0.089459	0.076567
17	0.035074	0.093396	0.066336	0.059332	0.036243	0.072551	0.039082	0.075953
18	0.079470	0.065491	0.037305	0.074198	0.045533		0.049368	
19	0.048317		0.048555		0.047878	0.083058	0.046312	0.083422
20	0.047459	0.093190	0.039417	0.072253	0.082961	0.086871	0.084420	0.097439
21	0.046020	0.186996	0.047990	0.088931	0.146330	0.166015	0.046574	0.093945
22	0.078288	0.078958	0.050361	0.095836	0.070659		0.061812	
23	0.071302		0.065667		0.084320	0.104959	0.057257	0.116024
24	0.090810	0.082646	0.052485	0.104497	0.066061	0.107010	0.081043	0.094554
25	0.086071	0.074129	0.065587	0.069580	0.077161	0.093818	0.057945	0.090675
26	0.047552	0.082486	0.044528	0.086905	0.314271		0.066705	
27	0.101614		0.053489		0.205531	0.215174	0.179666	0.194778
28	0.121441	0.072840	0.081708	0.103338	0.131310	0.144176	0.090066	0.086760
29	0.093667	0.089195	0.067022	0.064689	0.069306	0.059367	0.070515	0.080983
30	0.099811	0.339495	0.034300	0.212206	0.245438		0.194789	
31	0.056521		0.051501		0.044937	0.115022	0.055843	0.135303

- 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*

Date: 8/1/2021

Title:

8-2-2021

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 as above.



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

SWTR  
J

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III. 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	0.041407		0.043345		0.052115		0.074958	0.065973
2	0.107635	0.084664	0.092239	0.088045	0.105495	0.104404	0.109199	0.112865
3	0.070992	0.061227	0.061078	0.060617	0.071492	0.059184	0.041127	
4	0.027797		0.030357		0.040891		0.047409	0.053795
5	0.063341	0.058095	0.053153	0.047342	0.062056	0.059860	0.052198	0.051286
6	0.045555	0.042253	0.067623	0.063320	0.080436	0.075063	0.038366	0.038359
7	0.032722		0.036178		0.107160	0.065269	0.041572	0.104053
8	0.161287		0.124126		0.094604		0.079114	
9	0.080199	0.063991	0.064719	0.060448	0.083247	0.083240	0.056851	
10	0.038549		0.060448		0.114287	0.099934	0.062453	0.065219
11	0.064360	0.062920	0.066796	0.057762	0.102628	0.102119	0.084061	0.069736
12	0.063215	0.060104	0.069872	0.065165	0.082905		0.051968	
13	0.041264		0.044985		0.074389	0.066589	0.073304	0.067757
14	0.070388	0.066581	0.088904	0.071137	0.110847	0.080597	0.197120	0.091405
15	0.087747	0.077123	0.068654	0.056478	0.072822	0.065960	0.069302	0.066997
16	0.106642	0.087188	0.105064	0.091150	0.043587		0.053370	
17	0.036287		0.043658		0.102208	0.084339	0.081373	0.074731
18	0.088265	0.071800	0.082293	0.074646	0.072107	0.062856	0.074994	0.072569
19	0.105175	0.105175	0.110868	0.098404	0.095239	0.086440	0.102360	0.091084
20	0.107378	0.105922	0.120098	0.096000	0.058220		0.070945	
21	0.058879		0.064599		0.107417	0.099555	0.053724	0.106239
22	0.085287	0.071434	0.072716	0.063312	0.092536	0.082408	0.063094	0.107232
23	0.121440	0.106780	0.112024	0.106455	0.109082	0.095542	0.116017	0.104811
24	0.104515	0.100282	0.138029	0.107249	0.070561		0.085680	
25	0.055430		0.066277		0.186015	0.186015	0.063127	0.116020
26	0.073231	0.068989	0.072910	0.071902	0.086199	0.077564	0.094335	0.088874
27	0.087793	0.073398	0.116741	0.113198	0.077754	0.072524	0.097469	0.090946
28	0.082170	0.068273	0.072111	0.059204	0.052561		0.069361	
29	0.046900		0.069809		0.080399	0.072156	0.080422	0.083826
30	0.067265	0.057394	0.077162	0.079973	0.233130	0.096077	0.067087	0.064637
31	0.041645	0.127565	0.089534	0.149589	0.121107	0.115147	0.070444	0.110808

- 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 Cooksey*

Date: 8/2/2021

Title: 8-2-2021

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 as above.



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

**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 <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	001	TOWN HALL	1.02	7/7/2021	06:08	T. Duggan
RS	004	COTTAGE VARIETY	1.46	7/7/2021	08:02	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.19	7/7/2021	08:30	T. Duggan
RS	006	COMMUNITY CENTER	.06	7/7/2021	08:00	T. Duggan
RS	001	TOWN HALL	1.24	7/12/2021	06:08	T. Duggan
RS	004	COTTAGE VARIETY	1.33	7/12/2021	07:12	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.02	7/12/2021	08:05	T. Duggan
RS	006	COMMUNITY CENTER	.01	7/12/2021	06:47	T. Duggan
RS	001	TOWN HALL	1.15	7/19/2021	06:10	T. Duggan
RS	004	COTTAGE VARIETY	1.49	7/19/2021	07:15	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.01	7/19/2021	08:00	T. Duggan
RS	006	COMMUNITY CENTER	.06	7/19/2021	06:45	T. Duggan
RS	001	TOWN HALL	0.93	7/26/2021	07:08	J. Maclane
RS	004	COTTAGE VARIETY	1.1	7/26/2021	08:00	J. Maclane
RS	008E	STEWARTS POWER EQUIPMENT	.01	7/26/2021	08:20	J. Maclane
RS	006	COMMUNITY CENTER	.02	7/26/2021	07:35	J. Maclane

<sup>1</sup> DEP Sample Type, Location Code<sup>1</sup>, 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): **1.17**

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: *William Corbett* 8-2-2021

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 #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT

City/Town: RANDOLPH

Class: COM  NTNC  TNG

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine

Notes: Weekly samples taken in the distribution system

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

DEP Sample Type	DEP Location Code #	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 Approved SAMPLE LOCATION <sup>4</sup>	Address		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET		1.61	7-7-21	11:15am	A. PERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE		1.67		8:15am	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE		.86		10:45am	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET		1.78		12:15pm	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET		1.52		11:45am	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE		1.47		10:15am	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET		1.21		8:45am	
RS	014 A	ENTERPRISE - 249 NORTH MAIN STREET					
RS	016	OPHE AND AUTO - 317 NORTH MAIN ST OAK GROVE STANDPIPE		1.68	NO ACCESS DUE TO COVID-19	7:45am	
RS	017	SOUTH MAIN STREET STANDPIPE		.77		9:45am	

<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 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): 1.17

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 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] 8-2-2021

DEP Review Status: <input type="checkbox"/> Accepted <input type="checkbox"/> Disapproved	Review Comments:
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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: COMB  NTNC  TNC

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine

Notes: Weekly samples taken in the distribution system

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

DEP Sample Type	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	1.58	7/12/21	10:00AM	A. PIERRE - LOUES
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.56		7:30AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	1.36		8:00AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.98		11:30AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.81		11:00AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.32		9:30AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.84		8:30AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	ND. ACCESS DNE	TO	COVID-19	
RS	016	AND AUTO-317 NORTH MAIN ST OAK GROVE STANDPIPE	1.80		9:00AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.72		9:45AM	
					7:45AM	

<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 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: **66**

Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **1.17**

In accordance with 910 CMR 22.16(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:

*William Corbett* 8-22-2021

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 #: 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 D1253-86   
 Notes:  Weekly samples taken in the distribution system

DEP Sample Type	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	1.67	7-14-21	10:15 AM	A. Pierre-Louis
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.69		8:00 AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	1.15		9:15 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.77		11:15 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.75		10:45 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.52		9:45 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	1.23		8:30 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	DUE TO COVID-19	7:30 AM	
RS	016	ONE AND A HALF NORTH MAIN STREET OAK GROVE STANDPIPE	1.78		10:00 AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.86		9:00 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): 1.17  
 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] 5-2-2021



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 DEPR monitoring plan to help complete this section.  
 Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine  
 Notes: Weekly samples taken in the distribution system Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

DEP Sample Type	DEP Location Code #1	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	1.56	5/19/21	10:00AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.56		8:00AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	1.21		9:00AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.83		11:00AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.62		10:30AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.39		9:30AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.61		8:30AM	
RS	014 A	ENTERPRISE - 249 NORTH MAJ STREET	NO ACCESS	DVE TO	COVID-19	
RS	016	OLYME AUTO-317 NORTH MAIN STREET OAK GROVE STANDPIPE	1.78		7:30AM	
RS	016	OAK GROVE STANDPIPE	1.05		9:45AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.99		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, RC-Original Site Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).  
 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): **1.17**

In accordance with 310 CMR 22.15(p), 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: *William Corbett* 8-2-2021

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 #: 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  
 Notes:  Weekly samples taken in the distribution system

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

DEP Sample Type <sup>1</sup>	DEP Location Code # <sup>1</sup>	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 Approved SAMPLE LOCATION <sup>1</sup>	DATE		TIME		
RS	003	TOWER HILL SCHOOL - ADAMS STREET	17-26-21	1.41	10:00 AM		A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE		1.36	8:30 AM		
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE		1.04	9:00 AM		
RS	006	COMFORT INN - 1374 NORTH MAIN STREET		1.63	11:00 AM		
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET		1.48	10:30 AM		
RS	011	MOBIL STATION - 93 MAZZEO DRIVE		1.82	9:30 AM		
RS	012	7-11 FOOD SHOP - 675 NORTH STREET		.56	8:00 AM		
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET		NO ACCESS			
RS	016	AXY AUTO - 317 NORTH MAIN ST. OAK GROVE STANDPIPE		1.50	COVID-19 7:30 AM		
RS	017	SOUTH MAIN STREET STANDPIPE		.80	9:45 AM		
RS				.67	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>6</sup>: 66

Average Chlorine Result of All Samples For Month<sup>6</sup> (mg/L): 1.17

In accordance with 310 CMR 22.16(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 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: William Corbett 8-2-2021

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  No  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  No  Running Annual Average: \_\_\_\_\_ µg/L

**C. Chlorine/Chloramines**  
 Total Number of Samples: \_\_\_\_\_ Monthly Averages: \_\_\_\_\_ mg/L  
 (report all 3 months per quarter)  
 Month 1: 6/6 July 1.17 mg/L  
 Month 2: \_\_\_\_\_ mg/L  
 Month 3: \_\_\_\_\_ mg/L  
 Quarterly Average: 1.17 mg/L  
 Was the Running Annual Average MRDL (4.0 mg/L) exceeded? Yes  No  Running Annual Average: 1.20 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: \_\_\_\_\_ Monthly Averages: \_\_\_\_\_ mg/L  
 (report all 3 months per quarter)  
 Month 1: \_\_\_\_\_ mg/L  
 Month 2: \_\_\_\_\_ mg/L  
 Month 3: \_\_\_\_\_ mg/L  
 Quarterly Average: \_\_\_\_\_ mg/L  
 Was the (4.0 mg/L) threshold exceeded? Yes  No  Running Annual Average: \_\_\_\_\_ mg/L  
 (Attach additional sheet(s) to report more than 1 plant)

**III. FOR SYSTEMS USING OZONATION** - Attach additional sheets to report more than 1 plant.

**E. Bromate (treated)**  
 Plant Name: \_\_\_\_\_  
 Total Number of Samples: \_\_\_\_\_ Monthly Averages: \_\_\_\_\_ mg/L  
 (report all 3 months per quarter)  
 Month 1: \_\_\_\_\_ mg/L  
 Month 2: \_\_\_\_\_ mg/L  
 Month 3: \_\_\_\_\_ mg/L  
 Quarterly Average: \_\_\_\_\_ mg/L  
 Was the Running Annual Average MCL (0.010 ug/l) exceeded? Yes  No  Running Annual Average: \_\_\_\_\_ mg/L

**F. Bromide (raw)**  
 Required for systems seeking or approved to reduce Bromate monitoring  
 Plant Name: \_\_\_\_\_  
 Total Number of Samples: \_\_\_\_\_ Monthly Averages: \_\_\_\_\_ mg/L  
 (report all 3 months per quarter)  
 Month 1: \_\_\_\_\_ mg/L  
 Month 2: \_\_\_\_\_ mg/L  
 Month 3: \_\_\_\_\_ mg/L  
 Quarterly Average: \_\_\_\_\_ mg/L  
 Was the (0.05 mg/l) threshold exceeded? Yes  No  Running Annual Average: \_\_\_\_\_ mg/L

**IV. FOR SYSTEMS USING CHLORINE DIOXIDE** - Report compliance information on your Chlorine/Chlorine Dioxide (Daily Samples) report.

I certify under penalty 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 Cookley Date: 8-2-2021

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 10<sup>th</sup>, April 10<sup>th</sup>, July 10<sup>th</sup>, and Oct 10<sup>th</sup> of each year)

DEP REVIEW STATUS (Initial & Date)  
 Accepted \_\_\_\_\_  Disapproved \_\_\_\_\_  
 Review Comments \_\_\_\_\_