NYC Environmental Protection

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February 8, 2022

Li Huang, P.E.
New York City Department of Health and Mental Hygiene
Environmental Sciences & Engineering
42-09 28th Street, 14th Floor CN# 56
Long Island City, NY 11101

Patrick Palmer
New York State Department of Health
Bureau of Water Supply Protection, NYC Watershed Section
Empire State Plaza, Corning Tower, Room 1198
Albany, NY 12237

Katie Lynch
United States Environmental Protection Agency
Clean Water Division - New York City Water Supply Protection Program
290 Broadway, 24th Floor
New York, New York 10007-1866

RE: Monthly Water Quality Report for January 2022

Dear Ms. Huang, Mr. Palmer and Ms. Lynch:

Enclosed, please find the New York City Water Quality report for the month of **January 2022**. There was no well pumpage to distribution in the Groundwater System this month. Croton water was feeding into distribution for the month of January. In addition to the following list of compliance reports, electronic files containing compliance and non-compliance data for this month are being emailed to you.

- Raw Water Fecal Coliform Report
- Raw Water Turbidity Report
- Distribution Microbiological Compliance Reports
  - Summary
  - Positive Samples
  - Resamples
- Chlorine Residual Reports
  - Entry Point Online
  - Entry Point Daily Minimum
  - Heterotrophic Plate Count
  - Monthly Summary
- Distribution Turbidity Reports
  - Distribution Turbidity Report
  - Source Water > 1.49 NTU Table
- Color Entry Point Report

- Fluoride Reports
  - Fluoride Entry Point Report
  - Distribution Fluoride Report
- Quarterly Disinfection By-products Report

The reports are summarized as follows:

FAD REQUIREMENTS

1. *Raw Water Fecal Coliform Concentrations* (Section 141.71(a)(1)):
Requirements met. The Delaware Aqueduct effluent from Kensico Reservoir exhibited fecal coliform concentrations in water prior to disinfection at levels less than or equal to 20 CFU/100 mL in at least 90% of the samples collected in the six-month period from August 1, 2021 to January 31, 2022. The six month running percentage of samples collected with fecal coliform concentrations >20 CFU/100 mL was 3.26% for the Catskill/Delaware System for this time period.

2. *Raw Water Turbidity* (Section 141.71(a)(2)):
Requirements met. The raw water leaving Kensico Reservoir via the Delaware Aqueduct in compliance samples collected at DEL18DT, just prior to disinfection, exhibited turbidity levels less than or equal to 5 NTU on an ongoing basis during the month. The highest reported turbidity value was 1.9 NTU on the Catskill/Delaware System for the month.

3. *Entry Point Chlorine Residual* (Section 141.71(b)(1)(iii) and 141.72(a)(3)):
Requirements met. As required, continuous monitoring for free chlorine residual was maintained at the distribution entry points throughout the month and at no time did the concentration fall below 0.2 mg/L for more than four hours. The minimum daily free chlorine residual values for Catskill/Delaware System entry points from site 1S03 (Tunnel 1) was 0.40 mg/L, 1S03A (Tunnel 2) was 0.43 mg/L, and 1S03B (Tunnel 3) was 0.46 mg/L.

The Croton Filtration Plant was online throughout the month of January. Pumping to the Croton High Service entry point became intermittent daily from January 14 through 31, 2022. When the High Service pumps were off, distribution Tunnel 3 water reached the High Service entry point but not the Low Service entry point. The minimum daily free chlorine residual value for Croton entry points from site 1SCL1 (Low Service) was 0.52 mg/L and from 1SCH3 (High Service) was 0.28 mg/L.

4. *Distribution System Disinfection Residuals* (Section 141.71(b)(1)(iv) and 141.72(a)(4)):
Requirements met. All free chlorine residuals measured at compliance sites within the distribution system during the month were greater than or equal to 0.01 mg/L.

A total of 1274 distribution samples were tested for free chlorine residual during the month. For all monthly distribution sites free chlorine residual ranged from 0.01 to 0.86 mg/L and averaged 0.37 mg/L.

5. *Trihalomethane Monitoring / HAA5 Monitoring* (Section 141.71(b)(6)):
The results for the fourth quarter of 2021 were included in the report dated December 9, 2021 (For the November 2021 reporting period).

6. *Total Coliform Monitoring* (Section 141.71(b)(5)):
Requirements met. The results of monthly coliform monitoring performed in the distribution system are enclosed. A total of 835 compliance samples were tested for total coliform during this period. HPC were all ≤500 CFU/mL, equivalent to a measurable free chlorine residual. Zero percent of the samples had an undetectable free chlorine residual or HPC >500 CFU/mL. This meets the requirements that a free chlorine residual be maintained at representative points in the distribution system, and that no more than 5% of the free chlorine residual samples be undetectable in any two months. During the month, two (2) samples tested positive for total coliform and all samples were negative for *E. coli*.

- A sample collected on 01/16/2022 from Site 23350 (sample station opposite 985 Ocean Avenue, Brooklyn) was positive for total coliform. Resampling on 01/18/2022 was coliform negative at all locations.
- A sample collected on 01/20/2022 from Site 28450 (sample station in front of 2323 60th Street, Brooklyn) was positive for total coliform. Resampling on 01/22/2022 was coliform negative at all locations.

OTHER WATER QUALITY MONITORING

7. *Microbiological Monitoring:*
Coliform monitoring at distribution sites near first service connections, in response to source water having a turbidity >1.49 NTU, resulted in one (1) sample being negative for total coliform and *E. coli*.

The analyses of 439 distribution Operational samples resulted in one (1) sample testing positive for total coliform. No *E. coli* were detected.

The analyses of 248 Pre-Finished samples resulted in twelve (12) samples testing positive for total coliform and one (1) sample detected *E. coli*.

The analyses of 365 Autosampler Pre-finished samples resulted in twenty-two (22) samples testing positive for total coliform. No *E. coli* were detected.

8. *Distribution Turbidity Monitoring:*
For distribution sites, turbidity ranged from <0.10 to 2.18 NTU and averaged 0.71 NTU for the month. This meets the MCL of 5 NTU for the monthly average of all distribution samples.

9. *Color Monitoring:*
The MCL of 15 units for color was met for the month. Daily analyses of entry point samples (155 samples in total), produced monthly average color values of 8 units for site 1S03 (Tunnel 1), 9 units for sites 1S03A (Tunnel 2) and 1S03B (Tunnel 3), 4 units for site 1SCL1 (Croton Low Service), and 5 units for site 1SCH3 (Croton High Service).

10. ***Volatile Organic/TTHM/HAA5 Monitoring:***
Monthly Results: Twenty (20) distribution and five (5) entry point samples were collected for volatile organic contaminant (VOC) analysis. All VOC samples from distribution sites and entry points were below detection. Twenty (20) TTHM distribution samples were collected ranging from 20 µg/L to 44 µg/L. Five (5) TTHM entry point samples were collected ranging from 17 µg/L to 38 µg/L. Twenty (20) HAA5 distribution samples were collected ranging from 16 µg/L to 59 µg/L. Five (5) HAA5 entry point samples were collected ranging from 19 µg/L to 60 µg/L.

11. ***Semivolatile and Other Organic Chemicals/parameters:***
Quarterly monitoring for the two compounds 1,2-Dibromo-3-chloropropane and 1,2-Dibromoethane by EPA Method 524.3 SIM, determination of micro extractables, was conducted at the three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), at the Croton Low Service and High Service entry points (1SCL1 and 1SCH3), and one (1) distribution sampling site (50250) on January 21, 2022. All sample results were below detection.

EPA Method 525.3 monitoring for 112 compounds of specified and unspecified organic parameters was conducted on January 24, 2022 at the three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), the Croton Low and High Service entry points (1SCL1 and 1SCH3), and six (6) distribution points. All sample results were below detection.

Monitoring for Method 505 organohalide pesticides was conducted on January 31, 2022 at three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), and at the Croton Low Service and High Service entry points (1SCL1 and 1SCH3). All sample results were below detection.

12. ***Fluoride Monitoring:***
Daily analyses of entry point samples (155 samples in total), produced monthly average fluoride levels of 0.68 mg/L for sites 1S03 (Tunnel 1), 1S03A (Tunnel 2), and 1S03B (Tunnel 3), 0.66 mg/L for site 1SCL1 (Croton Low Service), and 0.67 mg/L for site 1SCH3 (Croton High Service). The fluoride levels at the entry points did not exceed the MCL of 2.2 mg/L at any time during the month.

Please feel free to contact me at (718) 595-5367 or sfreud@dep.nyc.gov if you would like to discuss any of this information in greater detail.

Sincerely,

Salome Freud

Salome Freud
First Deputy Director of Water Quality & Innovation

Enclosure

cc:
by email

Ms. Juve Hippolyte, Inspector General for NYCDEP
Mr. Kenneth Kosinski, NYSDEC
Mr. David Kvinge, Westchester County Water Agency
Mr. Huan Li, NYCDOHMH
Ms. Millie Magraw, Westchester County Water Agency
Mr. Trevor McProud, NYCDOHMH
Mr. Andy Tse, NYSDOH
Mr. Patrick Foster, NYSDEC – Region 2

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RAW WATER FECAL COLIFORM CONCENTRATIONS

(FAD Requirement)

NYCDEP Division of Watershed Water Quality Operations

Catskill/Delaware System Raw Water Fecal Coliform Compliance Report

Hawthorne Laboratory, ELAP Lab ID No. 10771
15 Skyline Drive, Hawthorne, NY 10532

Deputy Chief: David Robinson
914-345-4973

Catskill/Delaware Public Water System at Shaft 18 (DEL18DT) - Raw Water — **Period: 02/20 To: 01/22**

Date	Number of Fecal Coliform Samples Examined per Month	Number of Fecal Coliform Samples with >20 colonies per 100 mL	Percent of Monthly Fecal Coliform Samples with >20 colonies per 100 mL	Percent of Monthly Fecal Coliform Samples with >20 colonies per 100 mL for Previous Six Months
2-20	29	0	0.00	0.00
3-20	31	0	0.00	0.00
4-20	30	0	0.00	0.00
5-20	31	0	0.00	0.00
6-20	30	0	0.00	0.00
7-20	31	0	0.00	0.00
8-20	31	1	3.23	0.54
9-20	30	1	3.33	1.09
10-20	31	0	0.00	1.09
11-20	30	0	0.00	1.09
12-20	31	0	0.00	1.09
1-21	31	0	0.00	1.09
2-21	28	0	0.00	0.55
3-21	31	0	0.00	0.00
4-21	30	0	0.00	0.00
5-21	31	0	0.00	0.00
6-21	30	0	0.00	0.00
7-21	31	0	0.00	0.00
8-21	31	0	0.00	0.00
9-21	30	4	13.33	2.19
10-21	31	2	6.45	3.26
11-21	30	0	0.00	3.28
12-21	31	0	0.00	3.26
1-22	31	0	0.00	3.26

1. Does the percent of fecal coliform samples with >20 colonies per 100mL over the previous 6 months exceed 10%? ___Yes _X_No

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations D.W. Robinson 2/3/2022 2/3/22

All results that fall within the scope of the NELAP program meet that program's requirements unless stated in the qualifiers addendum printed at the end of this report.

Report Printed on 02/03/202210:13 am

RAW WATER TURBIDITY
(FAD Requirement)

NYCDEP Division of Watershed Water Quality Operations

Water Systems Operation Report - Catskill/Delaware System

Hawthorne Laboratory, ELAP Lab ID No. 10771
15 Skyline Drive, Hawthorne, NY 10532

Deputy Chief: David Robinson
914-345-4973

Catskill/Delaware Public Water System at Shaft 18 (DEL18DT) - Raw Water — **Period: January, 2022**

Date	Turbidity (NTU) 12 AM	4 AM	8 AM	12 PM	4 PM	8 PM	Total Coliform (Colonies per 100 mL)	Fecal Coliform (Colonies per 100 mL)
1/1/22	0.65	0.65	0.60	0.60	0.60	0.60	E6	E1
1/2/22	0.60	0.60	0.60	0.55	0.60	0.60	E20	E1
1/3/22	0.55	0.65	0.55	0.60	0.60	0.60	E4	E1
1/4/22	0.60	0.60	0.60	0.65	0.70	0.65	E10	E1
1/5/22	0.65	0.65	0.65	0.60	0.60	0.70	E2	E2
1/6/22	0.65	0.65	0.65	0.65	0.70	0.60	E16	E1
1/7/22	0.60	0.65	0.70	0.70	0.65	0.70	E15	E3
1/8/22	0.70	0.70	0.65	0.65	0.65	0.65	E18	E3
1/9/22	0.65	0.65	0.65	0.70	0.70	0.65	E4	E1
1/10/22	0.70	0.70	0.70	0.65	0.70	0.65	E8	E2
1/11/22	0.70	0.75	0.75	0.65	0.75	0.70	E10	E3
1/12/22	0.70	0.65	0.70	0.70	0.70	0.70	E16	E3
1/13/22	0.70	0.70	0.70	0.75	0.70	0.75	E6	E1
1/14/22	0.65	0.70	0.95	0.70	0.75	0.75	E6	E3
1/15/22	0.75	0.75	0.80	0.70	0.65	0.65	E6	E5
1/16/22	0.65	0.70	0.70	0.75	0.70	0.75	E6	E5
1/17/22	0.90	1.9	1.6	1.5	1.2	0.95	E14	E10
1/18/22	0.90	1.0	0.90	0.85	0.90	0.90	E22	E10
1/19/22	0.90	0.85	0.90	0.80	0.85	0.80	E18	E10
1/20/22	0.80	0.80	0.80	0.80	0.85	0.90	E18	E16
1/21/22	1.0	1.1	1.0	0.90	0.95	0.95	E26	E3
1/22/22	0.85	0.80	0.80	0.85	0.85	0.80	E16	E3
1/23/22	0.85	0.85	0.80	0.85	0.85	0.85	E26	E5
1/24/22	0.80	1.1	0.85	0.95	0.95	0.95	E4	E3
1/25/22	0.90	0.90	0.90	0.90	0.85	0.85	E4	E2
1/26/22	0.80	0.80	0.85	0.85	0.90	0.85	E18	E1
1/27/22	0.90	0.90	0.90	0.95	0.85	0.90	E8	E2
1/28/22	0.90	0.85	0.85	0.85	0.80	0.80	E12	E3
1/29/22	0.85	0.85	0.85	0.90	0.85	0.90	E18	E8
1/30/22	0.90	0.90	0.85	0.80	0.85	0.85	E8	E8
1/31/22	0.85	0.90	0.85	0.90	0.85	0.90	E12	E4

.: Aqueduct Shutdown, CONF: Confluent Growth (+ indicates positive coliform growth), LE: Lab Error, FE: Field Error, E: estimated count based on non-ideal plate, >=: plate count may be biased low based on heavy growth, >: observed count replaced with dilution based value

1. Does a raw water turbidity M & R violation exist? ___ Yes X__ No
2. Does the turbidity reading exceed 5 NTU at any time? ___ Yes X__ No
   If yes, check for MCL violation, and notify state by the end of the next business day.
3. Minimum number of microbiological samples required per week: __5__
4. A daily microbiological sample is required every day the raw water turbidity exceeds 1 NTU.

Additional Comments:

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations — 2/3/2022

All results that fall within the scope of the NELAP program meet that program's requirements unless stated in the qualifiers addendum printed at the end of this report.

Report Printed on 02/03/202210:12 am

NYCDEP Division of Watershed Water Quality Operations

Water Systems Operation Report - Qualifiers and Methods Addendum

Hawthorne Laboratory, ELAP Lab ID No. 10771
15 Skyline Drive, Hawthorne, NY 10532

Deputy Chief: David Robinson
914-345-4973

Data Qualifiers and Additional Notes

Period: January 2022

Date/Time	Site	Analytes Affected	Qualifier
1/18/22 09:48	DEL18DT	Total Coliform	QC blank contamination. Contamination on end blank for funnel 5

Analytical Methods

Coliform, Fecal	-	SM 9222D (2006)
Coliform, Total	-	SM 9222B (2006)
Turbidity	-	SM 2130B (01)

ENTRY POINT CHLORINE RESIDUAL
(FAD Requirement)

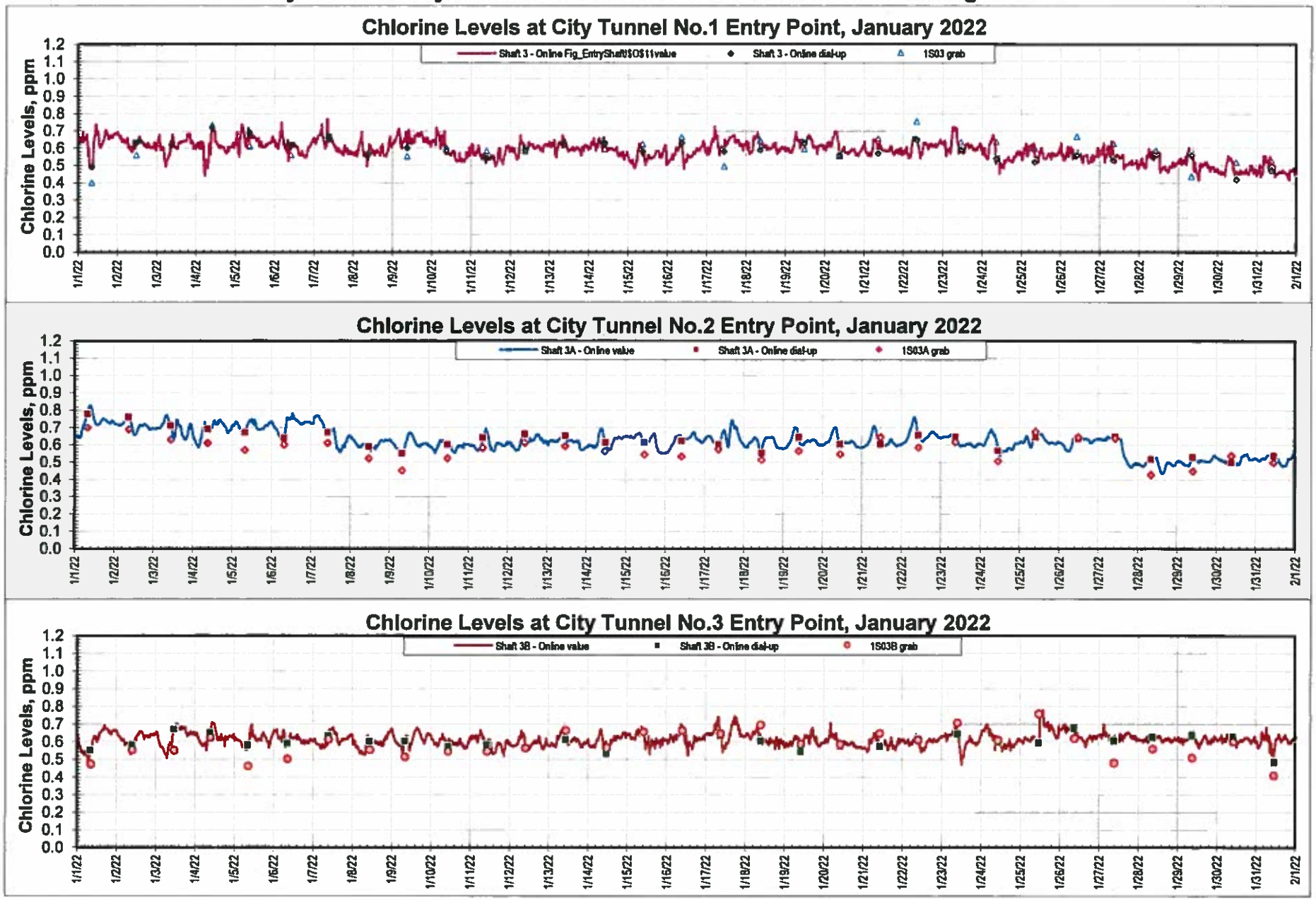
New York City Department of Environmental Protection
Bureau of Water Supply
Daily Minimum Chlorine Readings Recorded at Tunnel Entry Shafts for Catskill/Delaware System

Tunnel No.1 (Catskill) at Shaft 3			Tunnel No.2 (Delaware) at Shaft 3A			Tunnel No.3 (Cat/Del) at Shaft 3B		
Date	MinCl_1DL	Remark 1	Date	MinCl_2DL	Remark 2	Date	MinCl_3DL	Remark 3
01/01/22	0.48		01/01/22	0.64		01/01/22	0.48	
01/02/22	0.57		01/02/22	0.66		01/02/22	0.53	
01/03/22	0.49		01/03/22	0.63		01/03/22	0.51	
01/04/22	0.43		01/04/22	0.59		01/04/22	0.55	
01/05/22	0.55		01/05/22	0.66		01/05/22	0.55	
01/06/22	0.52		01/06/22	0.61		01/06/22	0.56	
01/07/22	0.55		01/07/22	0.56		01/07/22	0.56	
01/08/22	0.48		01/08/22	0.56		01/08/22	0.52	
01/09/22	0.59		01/09/22	0.55		01/09/22	0.53	
01/10/22	0.52		01/10/22	0.55		01/10/22	0.56	
01/11/22	0.49		01/11/22	0.56		01/11/22	0.51	
01/12/22	0.53		01/12/22	0.56		01/12/22	0.55	
01/13/22	0.54		01/13/22	0.57		01/13/22	0.56	
01/14/22	0.53		01/14/22	0.57		01/14/22	0.53	
01/15/22	0.48		01/15/22	0.55		01/15/22	0.53	
01/16/22	0.48		01/16/22	0.55		01/16/22	0.52	
01/17/22	0.55		01/17/22	0.59		01/17/22	0.53	
01/18/22	0.56		01/18/22	0.54		01/18/22	0.55	
01/19/22	0.56		01/19/22	0.57		01/19/22	0.55	
01/20/22	0.54		01/20/22	0.58		01/20/22	0.55	
01/21/22	0.55		01/21/22	0.58		01/21/22	0.53	
01/22/22	0.53		01/22/22	0.59		01/22/22	0.53	
01/23/22	0.55		01/23/22	0.58		01/23/22	0.46	
01/24/22	0.44		01/24/22	0.53		01/24/22	0.54	
01/25/22	0.50		01/25/22	0.58		01/25/22	0.58	
01/26/22	0.50		01/26/22	0.56		01/26/22	0.56	
01/27/22	0.47		01/27/22	0.46		01/27/22	0.59	
01/28/22	0.44		01/28/22	0.43		01/28/22	0.59	
01/29/22	0.40		01/29/22	0.47		01/29/22	0.56	
01/30/22	0.41		01/30/22	0.48		01/30/22	0.56	
01/31/22	0.40		01/31/22	0.47		01/31/22	0.49	

Legend: MinCl_1DL: Shaft 3's minimum chlorine level measured at the shaft and recorded at the location via data logger, in ppm.
MinCl_2DL: Shaft 3A's minimum chlorine level measured at the shaft and recorded at the location via data logger, in ppm.
MinCl_3DL: Shaft 3B's minimum chlorine level measured at the shaft and recorded at the location via data logger, in ppm.

New York City Department of Environmental Protection
Bureau of Water Supply

City Tunnel Entry Point Residual Chlorine Continuous Monitoring Results



Note: Continuous monitoring of free chlorine residual (FCR) at distribution entry points was maintained. FCR was maintained at or above 0.2 ppm at all times. Since 11/7/21, all online readings, grab and online dial-up readings were recorded in Eastern Standard Time.

New York City Department of Environmental Protection
Bureau of Water Supply

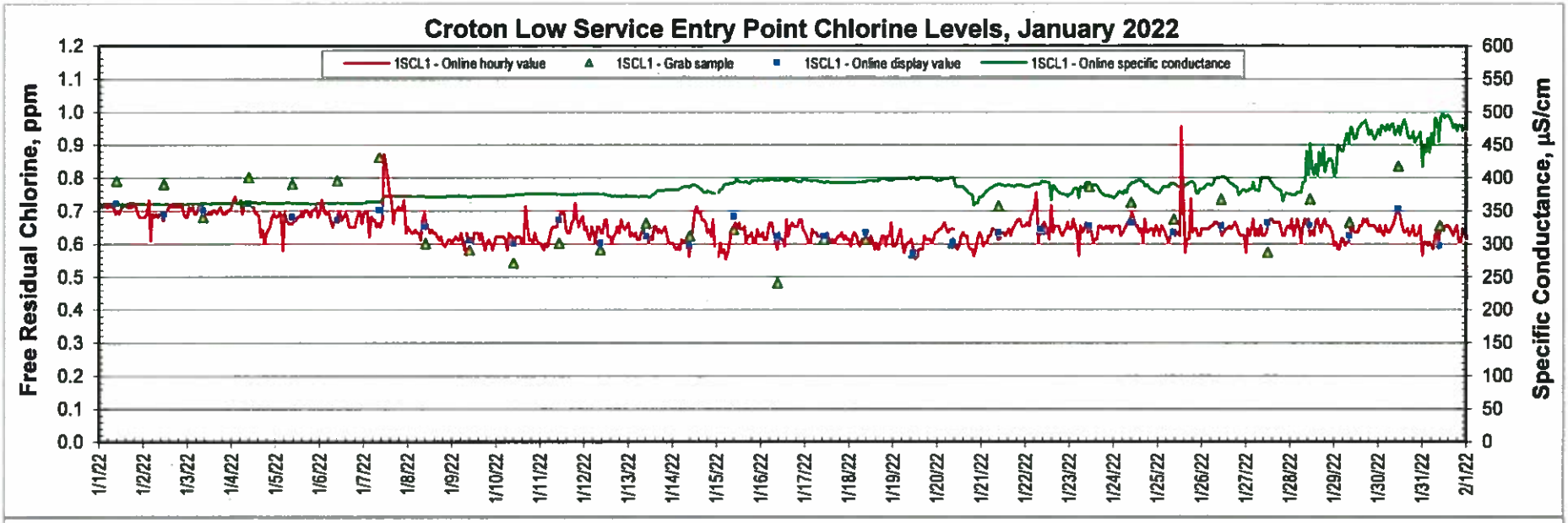
Daily Minimum Chlorine Readings Recorded at Croton Distribution Entry Points

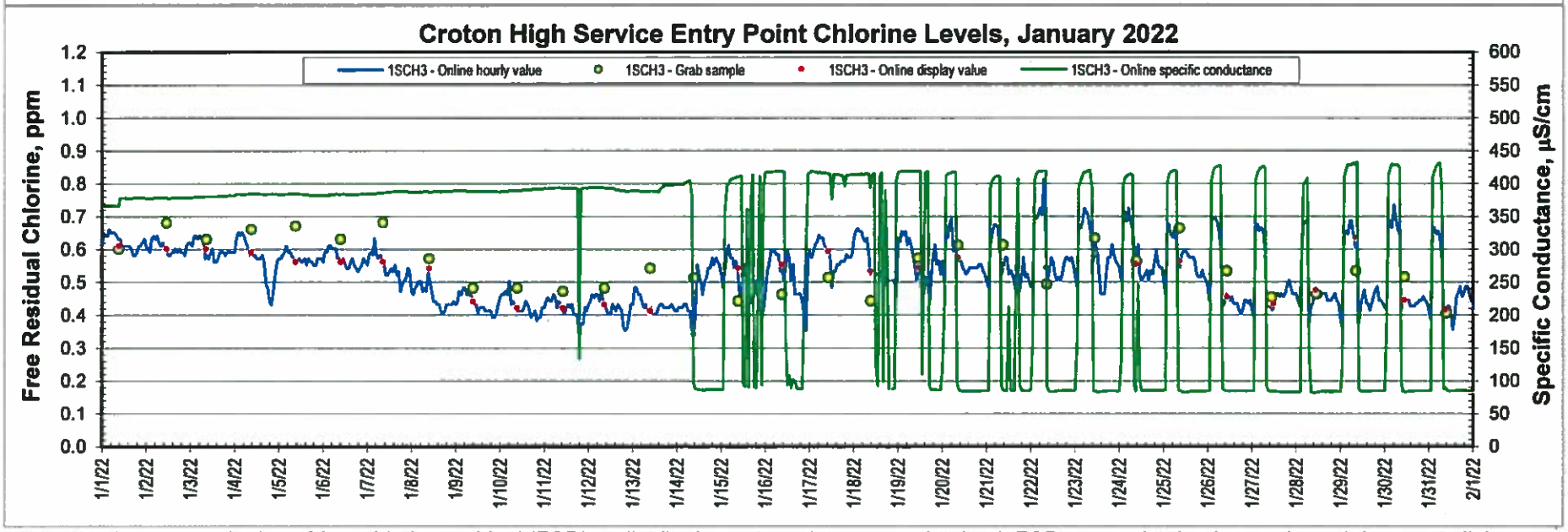
Low Service			High Service		
Date	MinCl_1SCL1	Remark 1	Date	MinCl_1SCH3	Remark 2
01/01/22	0.58		01/01/22	0.57	
01/02/22	0.60		01/02/22	0.56	
01/03/22	0.56		01/03/22	0.54	
01/04/22	0.57		01/04/22	0.43	
01/05/22	0.58		01/05/22	0.53	
01/06/22	0.57		01/06/22	0.52	
01/07/22	0.58		01/07/22	0.45	
01/08/22	0.56		01/08/22	0.40	
01/09/22	0.56		01/09/22	0.38	
01/10/22	0.56		01/10/22	0.37	
01/11/22	0.57		01/11/22	0.28	
01/12/22	0.58		01/12/22	0.31	
01/13/22	0.58		01/13/22	0.39	
01/14/22	0.56		01/14/22	0.31	
01/15/22	0.52		01/15/22	0.39	
01/16/22	0.55		01/16/22	0.34	
01/17/22	0.57		01/17/22	0.47	
01/18/22	0.55		01/18/22	0.44	
01/19/22	0.55		01/19/22	0.45	
01/20/22	0.54		01/20/22	0.48	
01/21/22	0.57		01/21/22	0.44	
01/22/22	0.59		01/22/22	0.46	
01/23/22	0.55		01/23/22	0.48	
01/24/22	0.56		01/24/22	0.52	
01/25/22	0.56		01/25/22	0.49	
01/26/22	0.56		01/26/22	0.44	
01/27/22	0.57		01/27/22	0.43	
01/28/22	0.56		01/28/22	0.39	
01/29/22	0.57		01/29/22	0.39	
01/30/22	0.56		01/30/22	0.41	
01/31/22	0.53		01/31/22	0.41	

Legend: MinCl_1SCL1: 1SCL1's minimum chlorine level measured and recorded at the location via data logger, in ppm.
MinCl_1SCH3: 1SCH3's minimum chlorine level measured and recorded at the location via data logger, in ppm.
Note: Croton water fed to High Service time period was determined by specific conductance greater than 150 µS/cm.

New York City Department of Environmental Protection
Bureau of Water Supply

Croton Distribution Entry Point Residual Chlorine Continuous Monitoring Results





Note: Continuous monitoring of free chlorine residual (FCR) at distribution entry points was maintained. FCR was maintained at or above 0.2 ppm at all times. Since 11/7/21, all online readings, grab and online dial-up readings were recorded in Eastern Standard Time.

DISTRIBUTION SYSTEM DISINFECTION RESIDUAL

(FAD Requirement)

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Residual Chlorine (mg/L) Distribution Samples

January 2022

All Distribution Sites			
Samples	Min	Max	Average
1274	0.01	0.86	0.37

Analytical Method SM 4500-Cl^- G (analyte is not ELAP certified)

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	RESIDUAL CHLORINE	COMMENT
569	1/7/2022	1SCL1	Reg Stop	0.86	Max
2213	1/20/2022	78450	Reg Stop	0.01	Min

A FCR is to be maintained at representative points in the distribution system and no more than 5% of the samples can be undetectable in any two months.

TOTAL COLIFORM MONITORING
(FAD Requirement)

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Summary of Results for Microbiological Quality
Compliance Samples

1/1/2022 to 1/31/2022

Location	Number of Sampling Points	Number of Samples Collected	Number of Samples Tested	Number of Samples with Positive Coliform *	Number of Samples with Positive E. coli *	Percent of Samples with Positive Coliform **
Bronx	46	137	137	0	0	0.0%
Brooklyn	70	209	209	2	0	1.0%
Manhattan	57	172	172	0	0	0.0%
Queens ***	79	231	231	0	0	0.0%
Staten Island	29	86	86	0	0	0.0%
Ground Water Supply ***	-	-	-	-	-	-
Total	281	835	835	2	0	0.2%

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B).

** If more than 5.0 % of all monthly TCR compliance samples are positive for total coliform, a Level I Assessment must be conducted.

*** There was no groundwater sample this month because no well was in operation to distribution.

Supervisor: Rupa Agrawal Date: 02/04/22

Director: [signature] Date: 2/4/2022

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Positive Compliance Samples

1/1/2022 to 1/31/2022

Date	Time	Site Number	Boro	Location	Coliform (MPN/100 mL) *	E. coli (MPN/100 mL) *	Chlorine Residual (mg/L) **	Remarks
1/16/2022	10:04	23350	Brooklyn	SS - W/S Ocean Ave, 2nd SS S/O Ditmas Ave, OPP 985 Ocean Ave, 12"	1.0	<1	0.20	To Be Resampled
1/20/2022	7:26	28450	Brooklyn	SS - NE/S 60th St, 2nd SS W/O McDonald Ave, IFO 2323 60th St, 16"	1.0	<1	0.36	To Be Resampled

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B).

** As determined by Method SM 4500-Cl^- G (analyte is not ELAP certified).

Supervisor: Rupa Agarwal Date: 02/04/22

Director: Date: 2/4/2022

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Resamples for Positive Compliance Samples

1/1/2022 to 1/31/2022

Date	Time	Site Number	Boro	Location	Coliform (MPN/100 mL) *	E. coli (MPN/100 mL) *	Chlorine Residual (mg/L) **	Remarks
1/18/2022	9:16	23350	Brooklyn	SS - W/S Ocean Ave, 1st SS S/O Ditmas Ave	<1	<1	0.15	Upstream
1/18/2022	9:31	23350	Brooklyn	SS - W/S Ocean Ave, 2nd SS S/O Ditmas Ave, OPP 985 Ocean Ave, 12"	<1	<1	0.11	Original Location
1/18/2022	9:39	23350	Brooklyn	SS - W/S Ocean Ave, 1st SS N/O Newkirk Ave	<1	<1	0.13	Downstream
1/22/2022	9:27	28450	Brooklyn	SS - NE/S 60th St, 1st SS W/O McDonald Ave, IFO 2345 60th St.	<1	<1	0.30	Upstream
1/22/2022	10:23	28450	Brooklyn	SS - NE/S 60th St, 2nd SS W/O McDonald Ave, IFO 2323 60th St, 16"	<1	<1	0.26	Original Location
1/22/2022	10:34	28450	Brooklyn	SS - NE/S 60th St, 1st SS E/O 23rd Ave, IFO 2311 60th St	<1	<1	0.28	Downstream

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B).
** As determined by Method SM 4500-Cl^- G (analyte is not ELAP certified).

Supervisor: Rupa Aggarwal Date: 02/04/22

Director: Date: 2/4/2022

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Free Chlorine Residual and Heterotrophic Plate Count
Compliance Samples

1/1/2022 to 1/31/2022

Location	Number of Sampling Points	Number of Samples Collected	Number of Samples Tested (Free Chlorine Residual)	Number of Samples Tested (Heterotrophic Plate Count)	Number of Samples with Free Chlorine Residual *		Range of Heterotrophic Plate Count (CFU/mL) for Free Chlorine Residual of 0.00 mg/L **	Number of Samples with Free Chlorine Residual of 0.00 mg/L and HPC > 500 CFU/mL	Percent of Samples with Free Chlorine Residual of 0.00 mg/L and HPC > 500 CFU/mL ***
					< 0.20 mg/L	0.00 mg/L			
Bronx	46	137	137	90	3	0	--	0	0.0%
Brooklyn	70	209	209	143	26	0	--	0	0.0%
Manhattan	57	172	172	131	40	0	--	0	0.0%
Queens †	79	231	231	164	53	0	--	0	0.0%
Staten Island	29	86	86	73	33	0	--	0	0.0%
Ground Water Supply †	-	-	-	-	-	-	--	-	-
Total	281	835	835	601	155	0	--	0	0.0%

* Free chlorine residual is determined by Method SM 4500-Cl^- G (analyte is not ELAP certified).
** Heterotrophic plate count is determined by Method SM 9215 B, PCA medium, 35°C, 48hrs. HPC result ≤ 500 CFU/mL is equivalent to a measurable FCR.
*** No more than 5 % of FCR samples shall be undetectable in any 2 consecutive months.

† There was no groundwater sample this month because no well was in operation to distribution.

Supervisor: Rupa Agarwal Date: 02/04/22

Director: Date: 2/4/2022

MICROBIOLOGICAL MONITORING

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Coliform Monitoring Results at Sample Sites near the First Service Connection When Source Water Turbidity Exceeds 1.49 NTU

January 2022

Source water		Distribution site near first service connection			
Date Turb>1.49 NTU	System	Sample Date	Sample Site	Coliform) (MPN /100 mL) *	E.coli (MPN /100 mL) *
1/17/2022	DEL 18	1/18/2022	17050	<1	<1

*** As determined by Colilert Quanti-Tray-18 Method (SM 9223B).**

DISTRIBUTION TURBIDITY MONITORING

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Turbidity (NTU) Distribution Samples

January 2022

All Distribution Sites			
Samples	Min	Max	Average
1274	<0.10	2.18	0.71

Analytical Method SM 2130 B

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	TURBIDITY	COMMENT
2666	1/24/2022	44350	Reg Stop	2.18	Max
135	1/2/2022	1SCH3	Reg Stop	<0.10	Min
144	1/2/2022	3SC26	Reg Stop	<0.10	Min

The monthly average of all distribution samples is not to exceed 5 NTU.

COLOR MONITORING

REPORT

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY DISTRIBUTION LABORATORY (NYSDOH ELAP #10770; USEPA #NY01351)

Color (U) for Distribution Entry Points

January 2022

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Catskill/Delaware 1S03 (Tunnel 1)	10	8	8	9	8	9	7	10	9	9	8	10	9	8	10	9	8	9	10	7	10	8	7	7	7	7	8	7	8	8	7
Catskill/Delaware 1S03A (Tunnel 2)	10	8	10	10	10	10	10	11	9	10	8	12	8	10	12	10	9	10	9	10	11	8	7	7	7	8	9	7	8	9	7
Catskill/Delaware 1S03B (Tunnel 3)	10	8	10	10	11	10	10	11	10	10	8	10	8	9	11	9	9	9	12	7	9	8	7	7	7	8	9	7	7	8	7
Croton System 1SCL1 [(a)]	3	3	3	3	4	4	3	4	4	4	3	4	3	4	4	3	4	4	4	3	4	4	4	3	4	4	4	4	4	4	3
Croton System 1SCH3 [(b)]	3	4	3	3	4	4	3	4	4	3	3	4	3	8	4	3	4	5	4	7	10	7	7	7	6	7	9	7	4	8	7

Analytical Method SM 2120 B. Apparent color.

The average of two consecutive samples from the same site is not to exceed the MCL of 15 color units.

[(a)] Croton System online as of 10/27/2020 at 1SCL1.

[(b)] Croton System online as of 9/10/2021 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	31	7	10	8
Catskill/Delaware 1S03A (Tunnel 2)	31	7	12	9
Catskill/Delaware 1S03B (Tunnel 3)	31	7	12	9
Croton System 1SCL1 [(a)]	31	3	4	4
Croton System 1SCH3 [(b)]	31	3	10	5

Supervisor _____ **Date** 02/07/22

Director _____ **Date** 2/7/22

FLUORIDE MONITORING

REPORT

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY DISTRIBUTION LABORATORY (NYSDOH ELAP #10770; USEPA #NY01351)

Fluoride (mg/L) for Distribution Entry Points

January 2022

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Catskill/Delaware 1S03 (Tunnel 1)	0.70	0.68	0.68	0.69	0.70	0.69	0.68	0.70	0.68	0.67	0.70	0.69	0.71	0.70	0.70	0.70	0.69	0.69	0.69	0.69	0.66	0.67	0.67	0.67	0.70	0.68	0.66	0.64	0.62	0.63	0.64
Catskill/Delaware 1S03A (Tunnel 2)	0.71	0.68	0.69	0.69	0.71	0.70	0.69	0.70	0.67	0.68	0.70	0.69	0.72	0.69	0.70	0.70	0.69	0.71	0.69	0.68	0.64	0.67	0.69	0.68	0.68	0.64	0.63	0.62	0.63	0.62	0.69
Catskill/Delaware 1S03B (Tunnel 3)	0.71	0.68	0.68	0.69	0.71	0.70	0.69	0.70	0.68	0.67	0.70	0.69	0.71	0.70	0.69	0.69	0.69	0.70	0.69	0.68	0.66	0.67	0.69	0.68	0.69	0.65	0.64	0.62	0.63	0.62	0.66
Croton System 1SCL1 [(a)]	0.67	0.64	0.64	0.64	0.66	0.64	0.65	0.66	0.64	0.62	0.64	0.65	0.70	0.65	0.66	0.67	0.67	0.66	0.69	0.65	0.64	0.67	0.64	0.65	0.65	0.67	0.66	0.69	0.68	0.64	0.64
Croton System 1SCH3 [(b)]	0.66	0.64	0.64	0.64	0.66	0.64	0.64	0.66	0.63	0.63	0.67	0.65	0.70	0.73	0.65	0.67	0.69	0.70	0.67	0.71	0.66	0.71	0.69	0.69	0.69	0.65	0.64	0.62	0.67	0.63	0.69

Analytical Method SM 4500 F C (97)

The average of two consecutive samples from the same distribution entry point site is not to exceed the MCL of 2.2 ppm.

[(a)] Croton System online as of 10/27/2020 at 1SCL1.

[(b)] Croton System online as of 9/10/2021 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	31	0.62	0.71	0.68
Catskill/Delaware 1S03A (Tunnel 2)	31	0.62	0.72	0.68
Catskill/Delaware 1S03B (Tunnel 3)	31	0.62	0.71	0.68
Croton System 1SCL1 [(a)]	31	0.62	0.70	0.66
Croton System 1SCH3 [(b)]	31	0.62	0.73	0.67

Supervisor _____ **Date** 02/07/2022

Director _____ **Date** 2/7/2022