Environmental Protection

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Commissioner

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July 9, 2021

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 June 2021

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

Enclosed, please find the New York City Water Quality report for the month of **June 2021**. There was no well pumpage to distribution in the Groundwater System this month. Croton water was feeding into distribution for the month of June. 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 January 1, 2021 to June 30, 2021. The six month running percentage of samples collected with fecal coliform concentrations >20 CFU/100 mL was 0.00% 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 1.2 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 0.65 mg/L, 1S03A (Tunnel 2) was 0.75 mg/L, and 1S03B (Tunnel 3) was 0.62 mg/L.

The Croton Filtration Plant was online and continuously feeding the Croton Low Service for the month of June. The Croton High Service entry point was offline for June. When the High Service pump is off, distribution Tunnel 3 water intermittently back feeds through the High Service tunnel to the Low Service entry point. The minimum daily free chlorine residual value for Croton entry points from site 1SCL1 (Low Service) was 0.51 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 0.02 mg/L.

A total of 1300 distribution samples were tested for free chlorine residual during the month. For all monthly distribution sites free chlorine residual ranged from 0.02 to 1.15 mg/L and averaged 0.61 mg/L.

The second quarter of 2021 chlorine residual Running Annual Average was 0.60 mg/L. This meets the MRDL of 4 mg/L for the quarterly running average of all systems samples.

5. *Trihalomethane Monitoring / HAA5 Monitoring* (Section 141.71(b)(6)):
Requirements met. The results for the second quarter of 2021 were included in the report dated June 9, 2021 (for the May 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 845 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, fourteen (14) samples tested positive for total coliform and negative for *E. coli*.

- A sample collected on 6/1/2021 from Site 77750 (sample station opposite 120-11 237th St Queens) was positive for total coliform. Resampling on 6/3/2021 was coliform negative at all locations.
- A sample collected on 6/1/2021 from Site 20650 (sample station west side 21st Avenue, second sample station south of Cropsey Ave, Brooklyn) was positive for total coliform. Resampling on 6/3/2021 was coliform negative at all locations.
- A sample collected on 6/3/2021 from Site 23150 (sample station in front of 1257 Ocean Pkwy, Brooklyn) was positive for total coliform. Resampling on 6/5/2021 was coliform negative at all locations.
- A sample collected on 6/4/2021 from Site 46450 (sample station in front of 150-03 north side Northern Blvd, Queens) was positive for total coliform. Resampling on 6/6/2021 was coliform negative at all locations.
- A sample collected on 6/7/2021/ from Site 32650 (sample station in front of 14 W 18th Street, Manhattan) was positive for total coliform. Resampling on 6/9/2021 was coliform negative at all locations.
- A sample collected on 6/9/2021 from Site 23650 (sample station east side Nostrand Ave, second sample station north of Ave W, Brooklyn) was positive for total coliform. Resampling on 6/11/2021 was coliform negative at all locations.
- A sample collected on 6/11/2021 from Site 77650 (sample station opposite 110-52 east side 207th St, Queens) was positive for total coliform. Resampling on 6/13/2021 was coliform negative at all locations.
- A sample collected on 6/13/2021 from Site 11150 (sample station in front of 71E north side E 183rd St, Bronx) was positive for total coliform. Resampling on 6/15/2021 was coliform negative at all locations.
- A sample collected on 6/14/2021 from Site 11050 (sample station in front of 1663 University Ave, Bronx) was positive for total coliform. Resampling on 6/6/2021 was coliform negative at all locations.
- A sample collected on 6/16/2021 from Site 17250 (sample station north side Allerton Ave, first sample station east of Throop Ave, Bronx) was positive for total coliform. Resampling on 6/18/2021 was coliform negative at all locations.

- A sample collected on 6/17/2021 from Site 37950 (sample station in front of 325 E 12th St, Manhattan) was positive for total coliform. Resampling on 6/19/2021 was coliform negative at all locations.
- A sample collected on 6/18/2021 from Site 40650 (sample station in front of 30-12 94th St, Queens) was positive for total coliform. Repeat sampling collected on 6/20/2021 was positive at the original sample station for total coliform. Resampling on 6/22/2021 was coliform negative at all locations.
- A sample collected on 6/21/2021 from Site 20050 (sample station north side Ave U, first sample station west of E 65th St, Brooklyn) was positive for total coliform. Resampling on 6/23/2021 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, was not required this month, but all these samples were negative for total coliform and *E. coli*.

The analyses of 455 distribution Operational samples resulted in eighteen (18) samples testing positive for total coliform. No *E. coli* were detected.

The analyses of 240 Pre-Finished samples resulted in nineteen (19) samples testing positive for total coliform. No *E. coli* were detected.

The analyses of 465 Autosampler Pre-finished samples resulted in ten (10) samples testing positive for total coliform. No *E. coli* were detected.

8. *Distribution Turbidity Monitoring:*
For distribution sites, turbidity ranged from <0.10 to 2.88 NTU and averaged 0.78 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 (120 samples in total), produced monthly average color values of 7 units for sites 1S03 (Tunnel 1), 1S03A (Tunnel 2), and 1S03B (Tunnel 3), and 4 units for site 1SCL1 (Croton Low Service).

10. *Volatile Organic/TTHM/HAA5 Monitoring:*
Monthly Results: Twenty-one (21) distribution and four (4) entry point samples were collected for volatile organic contaminant (VOC) analysis. All VOC samples from distribution sites and entry points were below detection. Twenty-one (21) TTHM distribution samples were collected ranging from 6 µg/L to 67 µg/L. Four (4) TTHM entry point samples were collected ranging from 13 µg/L to 67 µg/L. Twenty-one (21) HAA5 distribution samples were collected ranging from 10 µg/L to 62 µg/L. Four (4) HAA5 entry point samples were collected ranging from 13 µg/L to 57 µg/L.

11. *Semivolatile and Other Organic Chemicals/parameters:*
None conducted this month.

12. *Fluoride Monitoring:*
Daily analyses of entry point samples (120 samples in total), produced monthly average fluoride levels of 0.67 mg/L for sites 1S03 (Tunnel 1), 1S03A (Tunnel 2), and 1S03B (Tunnel 3), and 0.72 mg/L for site 1SCL1 (Croton Low Service). The fluoride levels at the entry points did not exceed the MCL of 2.2 mg/L at any time during the month.

13. Other Monitoring:
Please note the revised file "NYC_Monthly_Alldata_202103_rev1.xls" for March 2021 is included electronically with this report, specifically worksheet IOC_Daily_rev includes a revision to an incorrectly entered pH value for Site 50200 on 3/24/2021.

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
Deputy Director of Water Quality & Innovation

Enclosure

cc:
by email
Mr. Andrew Brunsden, 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. Steven Zahn, NYSDEC – Region 2

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Coliform Resample for Positive Compliance Samples	*(NYC_Micro_Compliance_Resamples_202106.xls)*
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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: 07/19 To: 06/21**

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
7-19	31	0	0.00	0.00
8-19	31	0	0.00	0.00
9-19	30	0	0.00	0.00
10-19	31	0	0.00	0.00
11-19	30	0	0.00	0.00
12-19	31	0	0.00	0.00
1-20	31	0	0.00	0.00
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

D.W. Robinson 7/2/21

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations 7/2/2021

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 07/02/2021 10:54 am

RAW WATER TURBIDITY
(FAD Requirement)

NYCDEP Division of Watershed Water Quality Operations

Water Systems Operation Report - Catskill/Delaware System

Environmental Protection

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: June, 2021**

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)
6/1/21	1.1	1.0	0.95	1.0	1.2	1.1	E26	E5
6/2/21	1.0	1.1	1.0	1.1	1.1	1.0	>=E19	E2
6/3/21	1.0	1.0	0.95	0.90	0.95	0.90	E25	E1
6/4/21	1.1	0.85	0.85	0.95	0.95	0.90	E65	<1
6/5/21	0.85	0.85	0.90	1.0	1.1	0.90	>=E3	E4
6/6/21	1.2	0.90	0.90	0.85	0.85	0.85	E4	<1
6/7/21	0.85	0.90	0.90	0.95	1.1	0.90	<2	<1
6/8/21	0.95	1.1	0.85	0.85	0.85	0.85	E14	<1
6/9/21	0.80	0.80	0.85	0.95	0.90	0.90	E16	E1
6/10/21	0.90	0.90	0.90	0.80	0.85	0.85	E10	<1
6/11/21	0.85	0.85	0.85	0.80	0.80	0.85	E20	E1
6/12/21	0.80	0.85	0.80	0.85	0.80	0.85	E8	<1
6/13/21	0.80	0.80	0.80	0.85	0.85	0.85	E12	E1
6/14/21	0.85	0.80	0.80	0.75	0.85	1.0	E35	E2
6/15/21	0.80	0.85	0.80	0.80	0.90	1.1	E14	<1
6/16/21	1.0	0.85	0.95	0.75	0.80	0.75	E8	<1
6/17/21	0.80	0.75	0.75	0.95	0.80	0.85	E16	<1
6/18/21	0.85	0.85	0.80	0.85	0.90	0.95	E30	<1
6/19/21	0.80	0.95	0.95	0.80	0.80	0.80	E2	E1
6/20/21	0.80	0.80	0.80	0.80	0.80	0.85	E8	<1
6/21/21	0.80	0.85	0.80	0.80	0.80	0.90	E18	E2
6/22/21	0.90	0.85	0.80	0.80	0.75	0.80	E10	<1
6/23/21	0.80	0.80	0.95	0.75	0.80	0.80	E22	E1
6/24/21	0.75	0.85	0.80	0.70	0.80	0.75	E10	<1
6/25/21	0.75	0.75	0.75	0.70	0.80	0.85	E8	E1
6/26/21	0.75	0.80	0.75	0.70	0.70	0.70	E6	E1
6/27/21	0.75	0.70	0.70	0.80	0.80	0.75	E25	E1
6/28/21	0.75	0.85	0.75	0.70	0.80	0.85	E4	<1
6/29/21	0.85	0.85	0.75	0.75	0.75	0.85	E5	E1
6/30/21	0.80	0.85	0.80	0.75	0.75	0.70	E16	<1

.: 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:

D W Robinson 7/2/21

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations 7/2/2021

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 07/02/202110:49 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: June 2021

Date/Time	Site	Analytes Affected	Qualifier
6/7/21 11:55	DEL18DT	Turbidity	More than 10 samples analyzed between QC.
6/7/21 15:55	DEL18DT	Turbidity	More than 10 samples analyzed between QC.
6/7/21 19:55	DEL18DT	Turbidity	More than 10 samples analyzed between QC.
6/7/21 23:55	DEL18DT	Turbidity	More than 10 samples analyzed between QC.
6/8/21 03:55	DEL18DT	Turbidity	More than 10 samples analyzed between QC.
6/8/21 07:55	DEL18DT	Turbidity	More than 10 samples analyzed between QC.

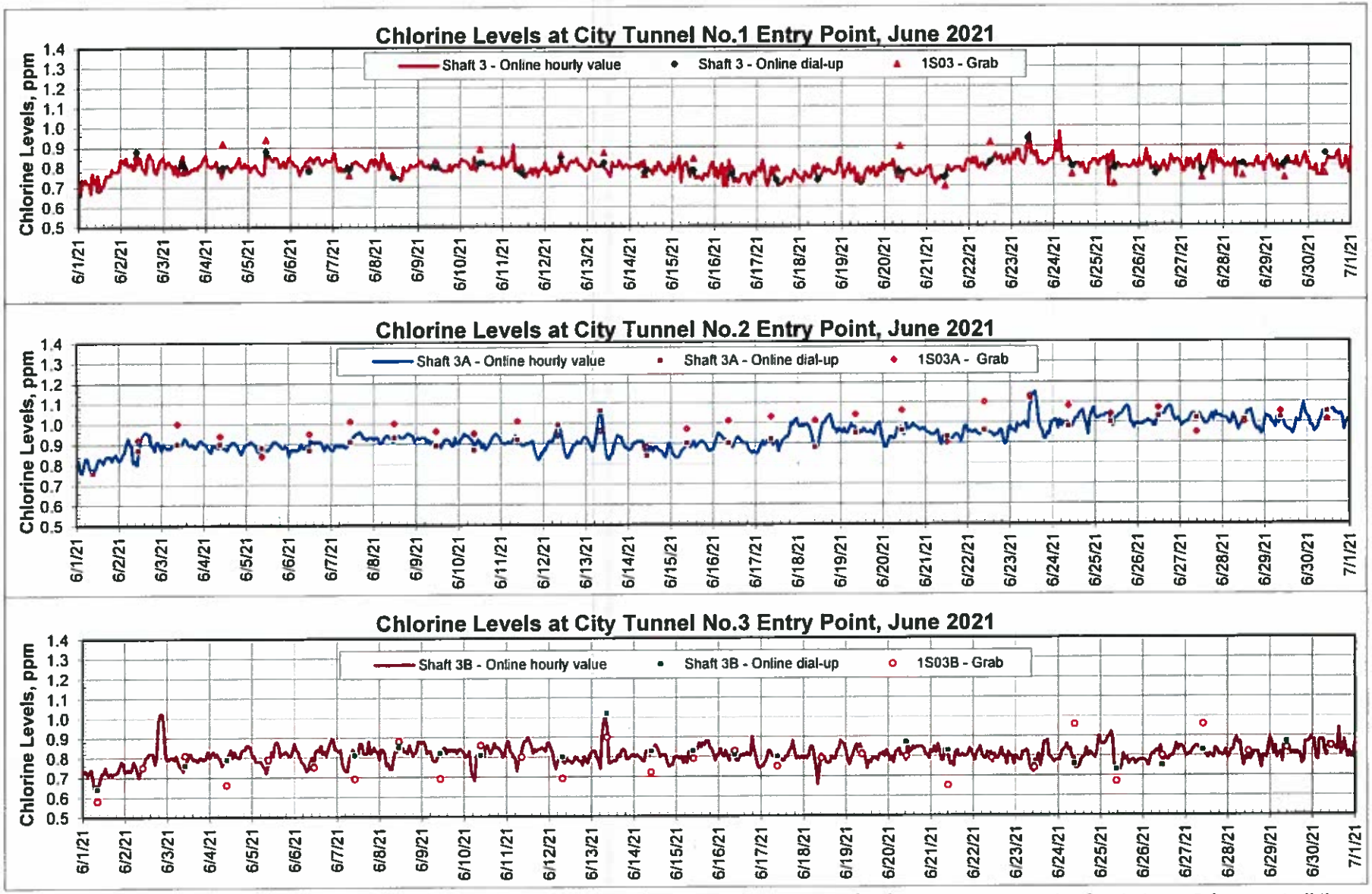
Analytical Methods

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

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 above 0.2 ppm at all times.

Since 3/14/2021 grab and online dial-up readings were recorded in Eastern Daylight Time.

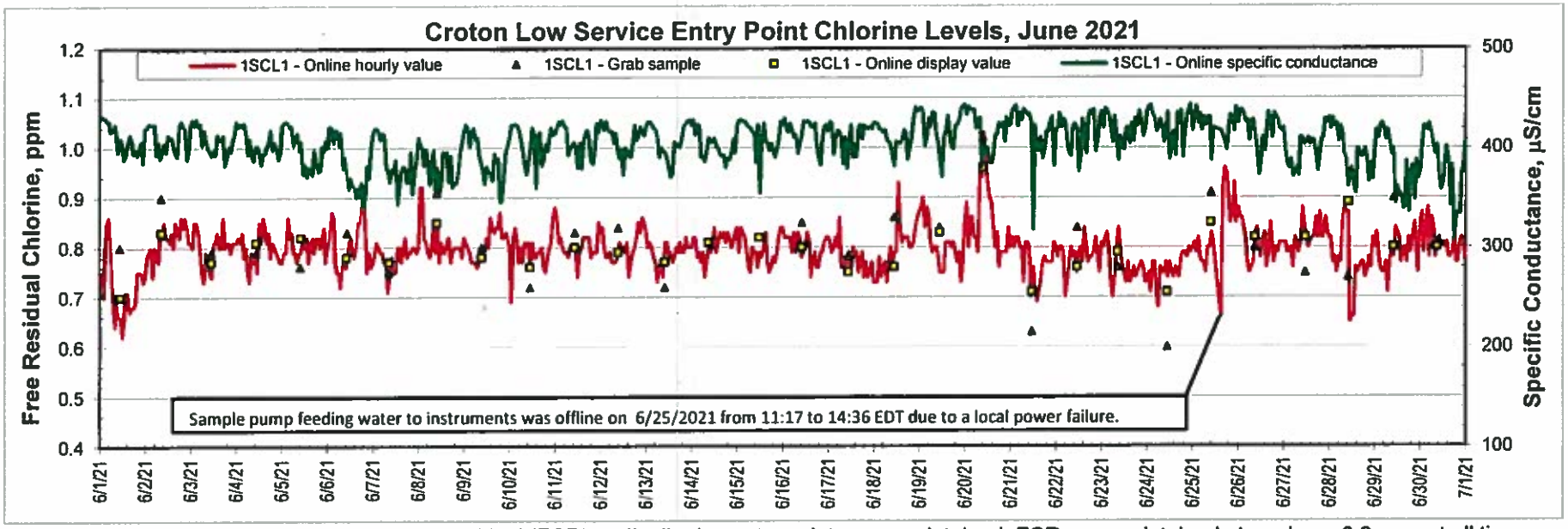
New York City Department of Environmental Protection
Bureau of Water Supply

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
06/01/21	0.67		06/01/21	0.75		06/01/21	0.62	
06/02/21	0.72		06/02/21	0.80		06/02/21	0.70	
06/03/21	0.74		06/03/21	0.87		06/03/21	0.72	
06/04/21	0.74		06/04/21	0.85		06/04/21	0.76	
06/05/21	0.74		06/05/21	0.83		06/05/21	0.72	
06/06/21	0.75		06/06/21	0.85		06/06/21	0.72	
06/07/21	0.75		06/07/21	0.87		06/07/21	0.73	
06/08/21	0.65		06/08/21	0.90		06/08/21	0.73	
06/09/21	0.76		06/09/21	0.86		06/09/21	0.77	
06/10/21	0.76		06/10/21	0.87		06/10/21	0.67	
06/11/21	0.72		06/11/21	0.80		06/11/21	0.71	
06/12/21	0.68		06/12/21	0.82		06/12/21	0.73	
06/13/21	0.75		06/13/21	0.81		06/13/21	0.72	
06/14/21	0.73		06/14/21	0.82		06/14/21	0.74	
06/15/21	0.70		06/15/21	0.82		06/15/21	0.70	
06/16/21	0.67		06/16/21	0.84		06/16/21	0.73	
06/17/21	0.67		06/17/21	0.85		06/17/21	0.74	
06/18/21	0.68		06/18/21	0.87		06/18/21	0.65	
06/19/21	0.68		06/19/21	0.88		06/19/21	0.73	
06/20/21	0.68		06/20/21	0.88		06/20/21	0.74	
06/21/21	0.68		06/21/21	0.88		06/21/21	0.73	
06/22/21	0.73		06/22/21	0.87		06/22/21	0.75	
06/23/21	0.77		06/23/21	0.89		06/23/21	0.70	
06/24/21	0.73		06/24/21	0.92		06/24/21	0.71	
06/25/21	0.68		06/25/21	0.96		06/25/21	0.72	
06/26/21	0.74		06/26/21	0.94		06/26/21	0.74	
06/27/21	0.72		06/27/21	0.98		06/27/21	0.78	
06/28/21	0.72		06/28/21	0.94		06/28/21	0.72	
06/29/21	0.72		06/29/21	0.92		06/29/21	0.73	
06/30/21	0.65		06/30/21	0.94		06/30/21	0.69	

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
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 3/14/21, all grab and online display readings were recorded in Eastern Daylight Saving 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
06/01/21	0.60		06/01/21		
06/02/21	0.73		06/02/21		
06/03/21	0.69		06/03/21		
06/04/21	0.73		06/04/21		
06/05/21	0.75		06/05/21		
06/06/21	0.70		06/06/21		
06/07/21	0.71		06/07/21		
06/08/21	0.72		06/08/21		
06/09/21	0.70		06/09/21		
06/10/21	0.70		06/10/21		
06/11/21	0.73		06/11/21		
06/12/21	0.72		06/12/21		
06/13/21	0.71		06/13/21		
06/14/21	0.71		06/14/21		
06/15/21	0.70		06/15/21		No Croton Water (Croton water stopped feeding into High Service entry point at 0938 EDT on 5/27/2021)
06/16/21	0.74		06/16/21		
06/17/21	0.71		06/17/21		
06/18/21	0.69		06/18/21		
06/19/21	0.68		06/19/21		
06/20/21	0.68		06/20/21		
06/21/21	0.64		06/21/21		
06/22/21	0.66		06/22/21		
06/23/21	0.64		06/23/21		
06/24/21	0.58		06/24/21		
06/25/21	0.51		06/25/21		
06/26/21	0.71		06/26/21		
06/27/21	0.66		06/27/21		
06/28/21	0.61		06/28/21		
06/29/21	0.71		06/29/21		
06/30/21	0.73		06/30/21		

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 was determined by specific conductance greater than 150 µS/cm.

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

June 2021

All Distribution Sites			
Samples	Min	Max	Average
1300	0.02	1.15	0.61

Hach DPD Method (analyte is not ELAP certified)

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	RESIDUAL CHLORINE	COMMENT
19449	6/24/21	12550	Reg Stop	1.15	Max
16782	6/1/21	77750	Reg Stop	0.02	Min
18354	6/15/21	52350	Reg Stop	0.02	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.

REPORT

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

Residual Chlorine (mg/L) Averages of Distribution Samples

Second Quarter 2021

Monthly Average			Quarterly Average				Running Annual Average †
Apr-2021	May-2021	Jun-2021	3rd Quarter of 2020	4th Quarter of 2020	1st Quarter of 2021	2nd Quarter of 2021	
0.53	0.50	0.61	0.63	0.61	0.60	0.55	0.60

Hach DPD Method (analyte is not ELAP certified)

† The Running Annual Average of all distribution sites is calculated four times a year (at the end of every quarter) by taking the average of the quarterly average of this quarter and the three previous quarters, and is not to exceed the MRDL of 4.0 mg/L.

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

6/1/2021 to 6/30/2021

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	140	140	3	0	2.1%
Brooklyn	70	214	214	4	0	1.9%
Manhattan	57	172	172	2	0	1.2%
Queens ***	79	237	237	5	0	2.1%
Staten Island	29	82	82	0	0	0.0%
Ground Water Supply ***	-	-	-	-	-	-
Total	281	845	845	14	0	1.7%

* 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: Reyes Aggarwal Date: 07/07/21

Director: [signature] Date: 7/7/2021

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

6/1/2021 to 6/30/2021

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
6/1/2021	11:59	77750	Queens	SS - OPP 120-11 W/S 237th St, 1st SS S/O 120th Ave	11.1	<1	0.02	To Be Resampled
6/1/2021	10:32	20650	Brooklyn	SS - W/S 21st Ave, 2nd SS S/O Cropsey Ave, 12 "	3.1	<1	0.51	To Be Resampled
6/3/2021	10:06	23150	Brooklyn	SS - E/S Ocean Pkwy, 2nd SS N/O Ave M, IFO 1257 Ocean Pkwy, 12 "	3.1	<1	0.78	To Be Resampled
6/4/2021	9:44	46450	Queens	SS - IFO 150-03 N/S Northern Blvd, 1st SS E/O 150th St, 12 "	1.0	<1	0.66	To Be Resampled
6/7/2021	8:41	32650	Manhattan	SS - IFO 14 S/S W 18th St, 2nd SS W/O 5th Ave, 12 "	144.5	<1	0.42	To Be Resampled
6/9/2021	9:56	23650	Brooklyn	SS - E/S Nostrand Ave, 2nd SS N/O Ave W, 20 "	1.0	<1	0.26	To Be Resampled
6/11/2021	7:54	77650	Queens	SS - OPP 110-52 E/S 207th St, 1st N/O 111th Ave	165.2	<1	0.51	To Be Resampled
6/13/2021	11:07	11150	Bronx	SS - IFO 71E N/S E 183rd St, 1st SS W/O Morris Ave, 12 "	4.2	<1	0.57	To Be Resampled
6/14/2021	10:57	11050	Bronx	SS - IFO 1675 W/S University Ave, 2nd SS S/O W 176th St, IFO 1669 University Ave 12 "	1.0	<1	0.67	To Be Resampled
6/16/2021	8:14	17250	Bronx	SS - N/S Allerton Ave, 1st SS E/O Throop Ave, 12 "	1.0	<1	0.86	To Be Resampled
6/17/2021	8:37	37950	Manhattan	SS - IFO 325 N/S E 12th St, 2nd SS E/O 2nd Ave, 12 "	4.2	<1	0.26	To Be Resampled
6/18/2021	10:44	40650	Queens	SS - IFO 30-12 W/S 94th St, 1st SS S/O 30th Ave, 12 "	>200.5	<1	0.94	To Be Resampled
6/20/2021	8:19	40650	Queens	SS - IFO 30-12 W/S 94th St, 1st SS S/O 30th Ave, 12 "	1.0	<1	0.77	To Be Resampled
6/21/2021	8:07	20050	Brooklyn	SS - N/S Ave U, 1st SS W/O E 65th St, 12 "	17.8	<1	0.57	To Be Resampled

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B). Results expressed in "MPN/100 mL."

** As determined by Hach DPD Method (analyte is not ELAP certified).

Supervisor: Rupa Aggarwal Date: 07/07/21

Director: [signature] Date: 7/7/2021

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

6/1/2021 to 6/30/2021

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
6/3/2021	8:37	77750	Queens	SS - W/S 237th St, 1st SS N/O 120th Ave	<1	<1	0.02	Upstream
6/3/2021	9:06	77750	Queens	SS - OPP 120-11 W/S 237th St, 1st SS S/O 120th Ave	<1	<1	0.02	Original Location
6/3/2021	9:25	77750	Queens	SS - W/S 237th St, 1st SS N/O 121st Ave	<1	<1	0.07	Downstream
6/3/2021	8:54	20650	Brooklyn	SS - W/S 21st Ave, 1st SS S/O Cropsey Ave	<1	<1	0.62	Upstream
6/3/2021	9:09	20650	Brooklyn	SS - W/S 21st Ave, 2nd SS S/O Cropsey Ave, 12 "	<1	<1	0.57	Original Location
6/3/2021	9:18	20650	Brooklyn	SS - W/S 21st Ave, 1st SS N/O Shore Pkwy	<1	<1	0.59	Downstream
6/5/2021	9:37	23150	Brooklyn	SS - E/S Ocean Pkwy, 1st SS S/O Ave L, IFO 1225 Ocean Pkwy (end of bldg)	<1	<1	0.68	Upstream
6/5/2021	9:58	23150	Brooklyn	SS - E/S Ocean Pkwy, 2nd SS N/O Ave M, IFO 1257 Ocean Pkwy, 12 "	<1	<1	0.69	Original Location
6/5/2021	10:18	23150	Brooklyn	SS - E/S Ocean Pkwy, 1st SS N/O Ave M, IFO 1277 Ocean Pkwy	<1	<1	0.69	Downstream
6/6/2021	9:20	46450	Queens	SS - N/S Northern Blvd, 1st SS E/O 150th Pl	<1	<1	0.72	Upstream
6/6/2021	9:36	46450	Queens	SS - IFO 150-03 N/S Northern Blvd, 1st SS E/O 150th St, 12 "	<1	<1	0.69	Original Location
6/6/2021	9:51	46450	Queens	SS - 149-45 N/S Northern Blvd, 1st SS W/O 150th St	<1	<1	0.69	Downstream
6/9/2021	8:50	32650	Manhattan	SS - S/S W 18th St, 1st SS W/O 5th Ave, IFO 4 W 18th St	<1	<1	0.37	Upstream
6/9/2021	8:57	32650	Manhattan	SS - IFO 14 S/S W 18th St, 2nd SS W/O 5th Ave, 12 "	<1	<1	0.27	Original Location
6/9/2021	9:07	32650	Manhattan	SS - S/S W 18th St, 1st SS E/O 6th Ave	<1	<1	0.28	Downstream
6/11/2021	8:15	23650	Brooklyn	SS - E/S Nostrand Ave, 1st SS S/O Ave V	<1	<1	0.20	Upstream
6/11/2021	8:25	23650	Brooklyn	SS - E/S Nostrand Ave, 2nd SS N/O Ave W, 20 "	<1	<1	0.20	Original Location
6/11/2021	8:39	23650	Brooklyn	SS - E/S Nostrand Ave, 1st SS N/O Ave W	<1	<1	0.22	Downstream
6/13/2021	7:00	77650	Queens	SS - W/S 207th St, 1st S/O Hollis Ave	<1	<1	0.45	Upstream
6/13/2021	7:21	77650	Queens	SS - OPP 110-52 E/S 207th St, 1st N/O 111th Ave	<1	<1	0.52	Original Location
6/13/2021	7:43	77650	Queens	SS - E/S 207th St, N/O 112th Ave	<1	<1	0.46	Downstream

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B). Results expressed in "MPN/100 mL."
** As determined by Hach DPD Method (analyte is not ELAP certified).

Supervisor: Rupa Agrawal Date: 07/07/21

Director: [signature] Date: 7/7/2021

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

6/1/2021 to 6/30/2021

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
6/15/2021	10:50	11150	Bronx	SS - N/S E 183rd St, BTW Morris & Creston Aves, IFO 105 E183rd St.	<1	<1	0.63	Upstream
6/15/2021	10:31	11150	Bronx	SS - IFO 71E N/S E 183rd St, 1st SS W/O Morris Ave, 12 "	<1	<1	0.64	Original Location
6/15/2021	10:13	11150	Bronx	SS - N/S E 183rd St, 1st SS E/O Walton Ave, IFO 55 E 183rd St.	<1	<1	0.64	Downstream
6/16/2021	7:40	11050	Bronx	SS - W/S University Ave, 1st SS S/O W 176th St, IFO 1685 University Ave.	<1	<1	0.36	Upstream
6/16/2021	7:54	11050	Bronx	SS - IFO 1675 W/S University Ave, 2nd SS S/O W 176th St, IFO 1669 University Ave 12 "	<1	<1	0.54	Original Location
6/16/2021	8:06	11050	Bronx	SS - W/S University Ave, 1st SS N/O W 175th St, OPP 1636 University Ave	<1	<1	0.49	Downstream
6/18/2021	8:50	17250	Bronx	SS - N/S Allerton Ave, 1st SS W/O Bouck Ave, OPP 1256 Allerton Ave.	<1	<1	0.93	Upstream
6/18/2021	8:43	17250	Bronx	SS - N/S Allerton Ave, 1st SS E/O Throop Ave, 12 "	<1	<1	0.93	Original Location
6/18/2021	8:20	17250	Bronx	SS - N/S Allerton Ave, BTW Pearsall & Throop Aves	<1	<1	0.89	Downstream
6/19/2021	7:20	37950	Manhattan	SS - N/S E 12th St, 1st SS E/O 2nd Ave	<1	<1	0.26	Upstream
6/19/2021	7:32	37950	Manhattan	SS - IFO 325 N/S E 12th St, 2nd SS E/O 2nd Ave, 12 "	<1	<1	0.27	Original Location
6/19/2021	7:45	37950	Manhattan	SS - N/S E 12th St, 1st SS W/O 1st Ave, IFO 345 E 12th St.	<1	<1	0.33	Downstream
6/20/2021	7:59	40650	Queens	SS - IFO 30-30 W/S 94th St, 1st SS N/O 31st Ave	<1	<1	0.75	Upstream
6/20/2021	8:19	40650	Queens	SS - IFO 30-12 W/S 94th St, 1st SS S/O 30th Ave, 12 "	1.0	<1	0.77	Original Location
6/20/2021	8:40	40650	Queens	SS - IFO 26-50 W/S 94th St, 1st SS N/O 30th Ave	<1	<1	0.44	Downstream
6/22/2021	8:29	40650	Queens	SS - IFO 30-30 W/S 94th St, 1st SS N/O 31st Ave	<1	<1	0.91	Upstream
6/22/2021	8:46	40650	Queens	SS - IFO 30-12 W/S 94th St, 1st SS S/O 30th Ave, 12 "	<1	<1	0.82	Original Location
6/22/2021	8:58	40650	Queens	SS - IFO 26-50 W/S 94th St, 1st SS N/O 30th Ave	<1	<1	0.81	Downstream
6/23/2021	7:41	20050	Brooklyn	SS - N/S Ave U, 1st SS E/O E 64th St	<1	<1	0.43	Upstream
6/23/2021	7:56	20050	Brooklyn	SS - N/S Ave U, 1st SS W/O E 65th St, 12 "	<1	<1	0.45	Original Location
6/23/2021	8:14	20050	Brooklyn	SS - N/S Ave U, BTW E 65th & E 66th Sts	<1	<1	0.39	Downstream

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B). Results expressed in "MPN/100 mL."
** As determined by Hach DPD Method (analyte is not ELAP certified).

Supervisor: Rupa Aggarwal Date: 07/07/21

Director: Date: 7/7/2021

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

6/1/2021 to 6/30/2021

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	140	140	106	1	0	--	0	0.0%
Brooklyn	70	214	214	160	5	0	--	0	0.0%
Manhattan	57	172	172	126	0	0	--	0	0.0%
Queens †	79	237	237	175	28	0	--	0	0.0%
Staten Island	29	82	82	63	12	0	--	0	0.0%
Ground Water Supply †	-	-	-	-	-	-	--	-	-
Total	281	845	845	630	46	0	--	0	0.0%

* Free chlorine residual is determined by Hach DPD Method (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 Agrawal Date: 07/07/21

Director: [signature] Date: 7/7/2021

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

June 2021

Source water		Distribution site near first service connection			
Date Turb>1.49 NTU	System	Sample Date	Sample Site	Coliform *	E.coli *

No official four-hour turbidity readings from Cat-Del source water were greater than 1.5 NTU this month.

* As determined by Colilert Quanti-Tray-18 Method (SM 9223B). Results expressed in "MPN /100mL."

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

June 2021

All Distribution Sites			
Samples	Min	Max	Average
1300	<0.10	2.88	0.78

Analytical Method SM 2130 B

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	TURBIDITY	COMMENT
19036	6/21/21	3SC26	Reg Stop	<0.10	Min
20118	6/30/21	21750	Reg Stop	2.88	Max

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

June 2020

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
Catskill/Delaware 1S03 (Tunnel 1)	7	7	7	7	6	6	8	7	7	6	7	6	6	7	7	6	6	7	6	6	6	7	6	7	7	6	7	6	6	8
Catskill/Delaware 1S03A (Tunnel 2)	8	8	7	7	7	6	7	7	6	5	7	6	7	7	7	7	6	6	6	7	6	7	7	7	6	6	7	7	6	7
Catskill/Delaware 1S03B (Tunnel 3)	8	8	7	7	7	6	7	7	7	6	7	7	7	7	7	7	6	7	6	6	6	7	6	6	7	7	7	7	6	7
Croton System 1SCL1 [a]	4	4	4	4	4	4	3	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3
Croton System 1SCH3 [b]																														

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 10/27/20 at 1SCL1.

[b] Croton System offline as of 5/28/21 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	30	6	8	7
Catskill/Delaware 1S03A (Tunnel 2)	30	5	8	7
Catskill/Delaware 1S03B (Tunnel 3)	30	6	8	7
Croton System 1SCL1 [a]	30	3	4	4
Croton System 1SCH3 [b]				

Supervisor _____ Date 07/02/2021

Director _____ Date 7/6/2021

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

June 2021

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
Catskill/Delaware 1S03 (Tunnel 1)	0.66	0.66	0.65	0.63	0.63	0.63	0.61	0.62	0.63	0.63	0.63	0.62	0.63	0.67	0.67	0.67	0.68	0.69	0.69	0.72	0.71	0.71	0.70	0.71	0.71	0.72	0.72	0.71	0.71	0.72
Catskill/Delaware 1S03A (Tunnel 2)	0.64	0.65	0.65	0.63	0.63	0.61	0.60	0.62	0.63	0.63	0.63	0.63	0.63	0.70	0.65	0.70	0.64	0.71	0.71	0.73	0.70	0.69	0.70	0.73	0.72	0.72	0.71	0.70	0.72	0.72
Catskill/Delaware 1S03B (Tunnel 3)	0.64	0.65	0.65	0.63	0.63	0.62	0.61	0.61	0.63	0.63	0.63	0.63	0.63	0.68	0.67	0.68	0.67	0.69	0.71	0.72	0.71	0.70	0.70	0.72	0.72	0.72	0.71	0.71	0.72	0.72
Croton System 1SCL1 [a]	0.72	0.72	0.73	0.67	0.72	0.73	0.71	0.70	0.71	0.73	0.72	0.70	0.73	0.74	0.77	0.72	0.74	0.75	0.75	0.69	0.73	0.72	0.74	0.71	0.74	0.73	0.70	0.71	0.70	0.70
Croton System 1SCH3 [b]																														

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 10/27/20 at 1SCL1.

[b] Croton System offline as of 5/28/21 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	30	0.61	0.72	0.67
Catskill/Delaware 1S03A (Tunnel 2)	30	0.60	0.73	0.67
Catskill/Delaware 1S03B (Tunnel 3)	30	0.61	0.72	0.67
Croton System 1SCL1 [a]	30	0.67	0.77	0.72
Croton System 1SCH3 [b]				

Supervisor _____ Date 07/02/2021

Director _____ Date 7/6/2021