

November 9, 2000

Ms. Kathleen Newcomer
Suffolk County Department of Health Services
Drinking Water Supply Section
220 Rabro Drive East
Hauppauge, New York 11788

Dear Ms. Newcomer:

SUBJECT: Monthly Water Treatment Plant Reports
Reference: Suffolk County Minimum Monitoring Requirements for October 2000

In accordance with the requirements of the BNL Potable Water System Sampling Plan and the 2000 SCDHS Minimum Monitoring Requirements for the BNL Potable Water Supply, included please find the following attachments for your records:

- Attachment I: BNL Potable Water Monthly Bacteriological and Operational Reports for October 2000.
- Attachment II: October 2000 Biweekly Water Quality Monitoring Data for BNL Potable Water Wells.
- Attachment III: Resubmittal of 2000 Semi-Annual Inorganic Analyses for the BNL Potable Water Distribution System and Potable Water Wells.

The Semi-Annual Inorganic Analyses for the BNL Potable Water Distribution System and Potable Water Wells are being resubmitted to your office due to an omission in the initial submission included with the September Monthly Water Treatment Plant Report. The initial results submitted to us by the analytical laboratory did not include silver concentrations, although the laboratory had performed the analyses. The results for silver concentration in the BNL potable water distribution system and potable water wells are accurately reported in Attachment III to this report. All analytical results have been reviewed and have been found to be within New York State Department of Health Drinking Water Standards (NYSDOH DWS). Collection and analysis of these samples are performed in accordance with the guidelines of the BNL Quality Assurance program, the SCDHS Community Water Supply Monitoring

Requirements, and the BNL Potable Water System Sampling Plan. Plant Engineering Division personnel using standard operating procedures collect routine monitoring samples; a contractor laboratory using standard methods of analysis performs the subsequent analyses. The Quality Assurance documentation is available from the Environmental Services Division and Plant Engineering Divisions. Based on this information, we believe the values contained in these reports are representative of the BNL potable water system.

Should there be any questions regarding this report or the analytical or operational data contained herein, please call either R. Lee at (631) 344-3148, M. Allocco at (631) 344-3166, or W. Chaloupka at (631) 344-7136.



Sincerely,

A handwritten signature in black ink, appearing to be 'Elizabeth A. Zimmerman', written in a cursive style.

E. A. Zimmerman, CEP, REM, CEA, CESM
Division Manager

EAZ/MA:rt

Attachments: As noted

cc:	T. Sheridan	w/o attachments
	W. Chaloupka	w/attachments
	R. Lee	w/attachments
	M. Allocco	w/attachments
	E. Murphy	w/attachments
	P. Ponturo	SCDHS, w/o attachments
	L. Ross	w/o attachments
	J. Granzen	w/attachments

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ATTACHMENT I

**Brookhaven National Laboratory
Potable Water Supply**

**Monthly Bacteriological and Operational
Reports for October 2000**

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : **OCTOBR 2000**

LOCATION: WATER TREATMENT PLANT

Source: Ground Water

Did an emergency occur in any part of the water system? yes ___ no ✓
 Does the system have a chlorination waiver? yes ___ no ✓

Day of month	CHLORINATION			pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite Gallons	Free Cl2 Residual	Lime Sodium	Totalizer	
	K Gals	150/172	per 24hrs mg/l	Hydroxide		
1	0					
2	2,789	150/149	23	0.85	7.5	12034348
3	1,060	150/150	0	0.83	7.5	12035408
4	1,172	140/150	10	0.4	7.6	12036580
5	1,111	132/150	8	0.6	7.8	12037691
6	1,118	122/150	10	0.6	7.8	12038809
7	0					
8	0					
9	2,872	100/150	22	0.9	7.7	12041681
10	1,131	91/150	9	0.66	7.8	12042812
11	1,153	83/150	8	0.7	7.6	12043965
12	1,121	74/150	9	0.8	7.7	12045086
13	1,051	69+111/150	5	0.7	7.7	12046137
14	0					
15	0					
16	3,316	146	34	0.6	7.8	12049453
17	884	137	9	0.6	7.9	12050337
18	1,045	129	8	0.6	7.9	12051382
19	1,060	120	9	0.69	7.8	12052442
20	1,122	110	10	63	7.5	12053564
21	0					
22	0					
23	3,019	90	20	0.67	7.7	12056583
24	1,461	80	10	0.75	7.6	12058044
25	1,453	70+35	10	0.64	7.4	12059497
26	1,005	102	3	0.63	7.6	12060502
27	1,003	95+105/148	7	0.51	7.6	12061505
28	0					
29	0					
30	2,973	181/148	19	0.89	7.5	12064478
31	1,045	177/148	4	0.63	7.4	12065523
TOT	33,964		247			3
AVG	1095.61		7.97	No. Days	31	

Population Served **3,500**

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes ___ No ✓

If yes, check reason's below.

___ Actual number of samples fewer than required.

___ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

___ Failure to analyze repeat samples.

Does an MCL violation exist? no

If yes, check reason(s) below.

___ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hturb) per month.

___ Positive E. Coli result followed by a positive total coliform repeat sample

___ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by Lee Ross

Date 11-1-00

Title WATER SYSTEMS SUPERVISOR

Cert # 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD : OCTOBER 2000
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LOCATION: WELL NO. 4

Did an emergency occur in any part of the water system? yes ___ no

Does the system have a chlorination waiver? yes ___ no

Source: Ground Water

Day of month	CHLORINATION			pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite Gallons	Free Cl2 Residual	___ Lime ___ Sodium Hydroxide	Totalizer	
	K Gals	Cl2 use per 24hrs	mg/l			
1	0					1425883
2	1,041	165	25	0.43	6	1425924
3	413	155	10	0.44	6	1427337
4	388	148	7	0.47	6	1427725
5	371	140	8	0.1	6.2	1428096
6	392	130+70	10	0.2	6.2	1428488
7	0					
8	0					
9	978	175	25	0.18	6.1	1429466
10	354	168	7	0.1	6.1	1429820
11	358	158	10	0.63	6.1	1430178
12	475	145	13	0.1	6.1	1430653
13	295	140	5	0.02	6	1430948
14	0					
15	0					
16	1,196	110	30	0.4	6.1	1432144
17	325	105	5	0.4	6.1	1432469
18	422	92	13	0.4	6.1	1432891
19	389	81	11	0.55	6.2	1433280
20	430	73+72	8	0.57	6.1	1433710
21	0					
22	0					
23	902	124	21	0.1	6	1434612
24	488	111	13	0.02	5.9	1435100
25	564	99	12	0.22	5.9	1435664
26	344	90	9	0.76	6	1436008
27	439	81+61	9	0.03	6	1436447
28	0					
29	0					
30	1,008	120	22	0.98	6	1437455
31	337	110	10	0.39	6	1437792
TOT	11,909		283			
AVG	384.16		9.13	No. Days:	31	

Population Served **3,500**

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes ___ No

If yes, check reason's below.

___ Actual number of samples fewer than required.

___ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

___ Failure to analyze repeat samples

Does an MCL violation exist? no

If yes, check reason(s) below.

___ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

___ Positive E. Coli result followed by a positive total coliform repeat sample.

___ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: SO Ross

Date: 11-1-00

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : **OCTOBER 2000**

LOCATION: WELL NO. 6

Source: Ground Water

Did an emergency occur in any part of the water system? yes no

Does the system have a chlorination waiver? yes no

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 65426
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂ Residual	Lime Sodium Hydroxide		
	K Gals	Gallons	Cl ₂ use per 24hrs	mg/l			
1	0						
2	644	189	7	0.43	6		66070
3	122	187	2	0.42	6		66192
4	110	185	2	0.47	6		66302
5	181	182	3	0.1	6.2		66483
6	375	179+16	3	0.2	6.2		66858
7	0						
8	0						
9	523	190	5	0.18	6.1		67381
10	304	183	7	0.1	6.1		67685
11	260	180	3	0.63	6.1		67945
12	234	179	1	0.1	6.1		68179
13	201	175	4	2	6		68380
14	0						
15	0						
16	858	165	10	0.4	6.1		69238
17	111	165	0	0.4	6.1		69349
18	235	160	5	0.4	6.1		69584
19	260	155	5	0.55	6.2		69844
20	136	154	1	0.57	6.1		69980
21	0						
22	0						
23	819	141	13	0.1	6		70799
24	304	140	1	0.02	5.9		71103
25	105	139	1	0.22	5.9		71208
26	223	135	4	0.76	6		71431
27	234	132	3	0.03	6		71665
28	0						
29	0						
30	352	128	4	0.98	6		72017
31	236	124	4	0.39	6		72253
TOT	6,827		88				0
AVG	220.23		2.84	No. Days	31		

Population Served 3,500

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes No

If yes, check reason's below.

Actual number of samples fewer than required.

Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample

Failure to analyze repeat samples.

Does an MCL violation exist? No

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

Positive E. Coli result followed by a positive total coliform repeat sample.

Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: JC Roen

Date: 11-1-00

Title: WATER SYSTEMS SUPERVISOR

Cert #: 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD : OCTOBER 2000
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LOCATION: WELL NO. 7

Did an emergency occur in any part of the water system? yes no

Does the system have a chlorination waiver? yes no

Source: Ground Water

Day of month	CHLORINATION			pH		Totalizer
	Treated Water	Liquid Sodium Hypochlorite Gallons	Free Cl ₂ use per 24hrs	Residual mg/l	Lime Sodium Hydroxide	Daily Totalizer
1	0	120				267847
2	2,404	100	20	0.43	6	270251
3	1,094	85/95	15	0.44	6	271345
4	1,156	160	20	0.47	6	272501
5	971	149	11	0.1	6.2	273472
6	932	140+60	9	0.2	6.2	274404
7	0					
8	0					
9	2,520	175	25	0.18	6.1	276924
10	1,005	163	12	0.1	6.1	277929
11	950	152	11	0.63	6.1	278879
12	1,047	142	10	0.1	6.1	279926
13	882	132	10	0.02	6	280808
14	0					
15	0					
16	2,923	101	31	0.4	6.1	283731
17	776	93	8	0.4	6.1	284507
18	949	82	11	0.4	6.1	285456
19	889	73	9	0.55	6.2	286345
20	977	60+65	13	0.57	6.1	287322
21	0					
22	0					
23	2,204	100	25	0.1	6	289526
24	1,291	84	16	0.02	5.9	290817
25	1,351	68	16	0.22	5.9	292168
26	848	60	8	0.76	6	293016
27	871	50+122	10	0.03	6	293887
28	0					
29	0					
30	2,440	142	30	0.98	6	296327
31	955	135	7	0.39	6	297282
TOT	29,435		327			0
AVG.	949.52		10.55	No. Days:	31	

Population Served 3,500

Number of routine samples 4
 (Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes No

If yes, check reason's below.

- Actual number of samples fewer than required.
- Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.
- Failure to analyze repeat samples.

Does an MCL violation exist? No

If yes, check reason(s) below.

- Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.
- Positive E. Coli result followed by a positive total coliform repeat sample.
- Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: JC Ross Date: 11-1-00
 Title: WATER SYSTEMS SUPERVISOR Cert # 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : **OCTOBER 2000**

LOCATION: WELL NO. 10

Did an emergency occur in any part of the water system? yes ___ no ✓
 Does the system have a chlorination waiver? yes ___ no ✓

Source: Ground Water

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 763869
	Treated Water	Liquid Sodium Hypochlorite	Free Cl ₂ Residual	Free Cl ₂ use	Lime Residual	Sodium Hydroxide	
	K Gals	Gallons	mg/l	per 24hrs			
1	0						
2	0	60	0	NR	NR		763869
3	0	60	0	NR	NR		763869
4	0	60	0	NR	NR		763869
5	0	60	0	NR	NR		763869
6	0	60	0	NR	NR		763869
7	0						
8	0						
9	0	60	0	NR	NR		763869
10	0	60	0	NR	NR		763869
11	0	60	0	NR	NR		763869
12	0	60	0	NR	NR		763869
13	82	59	1	NR	NR		763951
14	0						
15	0						
16	5	59	0	0.03	7.5		763956
17	0	59	0	NR	NR		763956
18	0	59	0	NR	NR		763956
19	0	59	0	NR	NR		763956
20	0	59	0	NR	NR		763956
21	0						
22	0						
23	0	59	0	N.R.	N.R.		763956
24	0	59	0	N.R.	N.R.		763956
25	0	59	0	N.R.	N.R.		763956
26	0	59	0	N.R.	N.R.		763956
27	0	59	0	N.R.	N.R.		763956
28	0						
29	0						
30	2	59	0	NR	NR		763958
31	0	59	0	NR	NR		763958
TOT	89		1				0
AVG	2.87		0.03	No. Days	31		

Population Served 3,500

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes ___ No ✓

If yes, check reason's below.

___ Actual number of samples fewer than required.

___ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

___ Failure to analyze repeat samples.

Does an MCL violation exist? NO

If yes, check reason(s) below.

___ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

___ Positive E. Coli result followed by a positive total coliform repeat sample.

___ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by *J. Papp* Date 11-1-00
 Title WATER SYSTEMS SUPERVISOR Cert # 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : **OCTOBER 2000**

LOCATION: WELL NO. 11

Did an emergency occur in any part of the water system? yes ___ no ✓

Source: Ground Water

Does the system have a chlorination waiver? yes ___ no ✓

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl ₂ Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl ₂ use per 24hrs				
1	0						
2	0	150	0	NR	NR		325848
3	6	150	0	0.02	6.8		325854
4	3	150	0	NR	NR		325857
5	1	150	0	0.67	7.2		325858
6	4	150	0	NR	NR		325862
7	0						
8	0						
9	0	150	0	NR	NR		325862
10	0	150	0	NR	NR		325862
11	0	150	0	NR	NR		325862
12	21	149	1	0.61	8		325883
13	72	149	0	NR	NR		325955
14	0						
15	0						
16	15	149	0	0.02	7.5		325970
17	0	148	1	0.13	6.7		325970
18	54	148	0	0.11	6.8		326024
19	40	148	0	N.R.	N.R.		326064
20	34	148	0	N.R.	N.R.		326098
21	0						
22	0						
23	10	146	2	0.51	7.4		326108
24	68	144	2	0.9	7.8		326176
25	40	144	0	N.R.	N.R.		326216
26	59	144	0	0.3	7.8		326275
27	83	144	0	N.R.	N.R.		326358
28	0						
29	0						
30	241	144	0	0.5	7.8		326599
31	85	144	0	0.38	6.05		326684
TOT	836		6				
AVG	26.97		0.19	No. Days:	31		

Population Served 3,500

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes ___ No ✓

If yes, check reason's below.

___ Actual number of samples fewer than required

___ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

___ Failure to analyze repeat samples.

Does an MCL violation exist? no

If yes, check reason(s) below.

___ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

___ Positive E. Coli result followed by a positive total coliform repeat sample.

___ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by J. P. Ross

Date: 11-1-00

Title WATER SYSTEMS SUPERVISOR

Cert. # 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : **OCTOBER 2000**

LOCATION: WELL NO. 12

Did an emergency occur in any part of the water system? yes _____ no

Source: Ground Water

Does the system have a chlorination waiver? yes _____ no

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Gallons	Hypochlorite Cl2 use per 24hrs	Free Cl2 Residual mg/l	Lime Sodium Hydroxide	274027	
	K Gals	180	0	0.9	7.6		
1	0						
2	5	180	0	0.9	7.6	274032	
3	5	180	0	0.36	7.2	274037	
4	1	180	0	NR	NR	274038	
5	2	180	0	0.62	7.1	274040	
6	0	180	0	NR	NR	274040	
7	0						
8	0						
9	0	180	0	NR	NR	274040	
10	0	180	0	NR	NR	274040	
11	0	180	0	NR	NR	274040	
12	72	180	0	0.32	7.9	274112	
13	79	180	0	0.1	7.9	274191	
14	0						
15	0						
16	17	180	0	0.2	7.5	274208	
17	0	180	0	1.24	7.5	274208	
18	35	180	0	0.02	6.9	274243	
19	25	179	1	0.42	7	274268	
20	39	178	1	0.83	7.5	274307	
21	0						
22	0						
23	10	178	0	0.11	7.4	274317	
24	221	178	0	0.4	7.8	274538	
25	372	176	2	0.5	7.9	274910	
26	261	176	0	0.6	8	275171	
27	0	176	0	N.R.	N.R.	275171	
28	0						
29	0						
30	0	175	1	0.5	8.0	275171	
31	0	175	1	0.38	7.9	275171	
TOT	1,144		6				
AVG	36.90		0.19	No. Days	31		

Population Served **3,500**

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? yes _____ No

If yes, check reason's below.

_____ Actual number of samples fewer than required.

_____ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

_____ Failure to analyze repeat samples

Does an MCL violation exist? NO

If yes, check reason(s) below.

_____ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

_____ Positive E. Coli result followed by a positive total coliform repeat sample.

_____ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by JL Ross

Date 11-1-00

Title WATER SYSTEMS SUPERVISOR

Cert. # 05650

10/31/00
Pump Data

MONTHLY GALLONAGE REPORT
Oct2000

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total
1	0	0	0	0	0	0	0
2	1,041	644	2,404	0	0	5	4,094
3	413	122	1,094	0	6	5	1,640
4	388	110	1,156	0	3	1	1,658
5	371	181	971	0	1	2	1,526
6	392	375	932	0	4	0	1,703
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	978	523	2,520	0	0	0	4,021
10	354	304	1,005	0	0	0	1,663
11	358	260	950	0	0	0	1,568
12	475	234	1,047	0	21	72	1,849
13	295	201	882	82	72	79	1,611
14	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0
16	1,196	858	2,923	5	15	17	5,014
17	325	111	776	0	0	0	1,212
18	422	235	949	0	54	35	1,695
19	389	260	889	0	40	25	1,603
20	430	136	977	0	34	39	1,616
21	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0
23	902	819	2,204	0	10	10	3,945
24	488	304	1,291	0	68	221	2,372
25	564	105	1,351	0	40	372	2,432
26	344	223	848	0	59	261	1,735
27	439	234	871	0	83	0	1,627
28	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0
30	1,008	352	2,440	2	241	0	4,043
31	337	236	955	0	85	0	1,613
Total	11,909	6,827	29,435	89	836	1,144	50,240
		Totalizer		Totalizer		Total(x1,000)	
		This Month		Last Month		Gallons	
	Well 4	1,437,792		1,425,883		11,909	
	Well 6	72,253		65,426		6,827	
	Well 7	297,282		267,847		29,435	
	Well 10	763,958		763,869		89	
	Well 11	326,684		325,848		836	
	Well 12	275,171		274,027		1,144	
AGS Water Supply Meter		181,546		178,431			3115.00
Medical Reactor - Well 105		86,806,120		83,449,870			3356.25
Biology Building - Well 9		5,747,770		5,714,610			33.16

LABORATORY RESULTS

Received : 12-OCT-2000 15:05
Collected By : JK99
Sample Type : Potable Water

BROOKHAVEN NATIONAL LAB.-BNLM
70 BELL AVE.
UPTON, NY 11973
Federal ID : 5111891

Copies To : SCHD

Lab Number	Collected	Location	Units Method Limits	T. COLL. BACT. NONE SM#9223 NEGATIVE	E. COLI. NONE SM#9223 ABSENT	CHLORINE RESIDUAL mg/L SM#4500-C1G N/A
20001012-218 ROUTINE DISTRIBUTION	12-OCT-2000 06:15	B-40 WATER TOWER	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.6 12-OCT-2000	
20001012-219 ROUTINE DISTRIBUTION	12-OCT-2000 06:45	B-640 WATER TOWER	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.4 12-OCT-2000	
20001012-220 ROUTINE DISTRIBUTION	12-OCT-2000 07:45	B-1005 RHIC	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.2 12-OCT-2000	
20001012-221 ROUTINE DISTRIBUTION	12-OCT-2000 06:00	B-303 APT. LAUNDRY	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.2 12-OCT-2000	
20001012-222 ROUTINE DISTRIBUTION	12-OCT-2000 13:15	B-725 NSLS	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.2 12-OCT-2000	
20001012-223 ROUTINE DISTRIBUTION	12-OCT-2000 12:30	B-490 BLOCK 4 ACF	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.7 12-OCT-2000	
20001012-224 ROUTINE DISTRIBUTION	12-OCT-2000 13:00	B-490 BLOCK 4 MRC	NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.4 12-OCT-2000	

Result(s) reported meet(s) NEW YORK STATE/USEPA limits for Potable Water.

Date Issued : 10/23/2000

ORIGINAL
Report for client information only



ATTACHMENT II

**Brookhaven National Laboratory
Potable Water Supply**

**October 2000 Biweekly and Quarterly Water Quality Monitoring Data for
the BNL Distribution System and Potable Water Wells**

Attachment II
Table 1
Summary of Water Quality Analyses
for the BNL Potable Water System
October 2000

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (µmhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	10/3/00	7.5	54	136	NR	NR
WTP	10/5/00	7.8	55	135	NR	NR
WTP	10/10/00	7.8	55	134	NR	NR
WTP	10/12/00	7.7	54	137	NR	NR
WTP	10/17/00	7.9	55	130	NR	NR
WTP	10/19/00	7.8	57	65	NR	NR
WTP	10/24/00	7.6	54	130	NR	NR
WTP	10/26/00	7.6	55	128	NR	NR
WTP	10/31/00	7.4	54	125	NR	NR
Well 11	10/3/00	6.8	56	222	NR	NR
Well 11	10/5/00	7.2	56	243	NR	NR
Well 11	10/12/00	8.0	56	195	NR	NR
Well 11	10/17/00	6.7	54	156	NR	NR
Well 11	10/24/00	7.8	56	190	NR	NR
Well 11	10/26/00	7.8	55	191	NR	NR
Well 11	10/31/00	6.5	54	169	NR	NR
Well 12	10/3/00	7.2	56	187	NR	NR
Well 12	10/5/00	7.1	56	142	NR	NR
Well 12	10/12/00	7.9	56	180	NR	NR
Well 12	10/17/00	7.5	56	170	NR	NR
Well 12	10/19/00	7.0	56	149	NR	NR
Well 12	10/24/00	7.8	56	181	NR	NR
Well 12	10/26/00	8.0	56	201	NR	NR
Well 12	10/31/00	7.9	56	188	NR	NR

NR - Analysis Not Required or Not Reported

WTP - Water Treatment Plant

Note: Field parameters are only conducted for facilities that are in operation on the day of measurement.

ATTACHMENT III

**Brookhaven National Laboratory
Potable Water Supply**

**Resubmittal of 2000 Semi-Annual Inorganic Analyses
for the BNL Potable Water Distribution System
and Potable Water Wells**

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-185_MEN'S_RM

Lab Name: H2M_LABS, INC.

Contract: _____

Lab Code: H2MLAB

Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER

Lab Sample ID: 20000706-197

Level (low/med): LOW

Date Received: 07/06/00

Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	23.4	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.3	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	354			P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	195			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.7	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	22200			P
7440-28-0	Thallium	0.50	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	31.3			P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS Clarity After: CLEAR

Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000

INORGANIC ANALYSIS DATA SHEET

WELL_4

Lab Name: H2M_LABS, INC.

Contract: _____

Lab Code: H2MLAB

Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER

Lab Sample ID: 20000706-191

Level (low/med): LOW

Date Received: 07/06/00

Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	1.8	B		F
7440-39-3	Barium	25.5	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.4	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	6380			P
7439-92-1	Lead	1.3	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	170			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.0	B	W	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	12400			P
7440-28-0	Thallium	0.70	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	5.3	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_6

Lab Name: H2M_LABS, INC.

Contract: _____

Lab Code: H2MLAB

Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER

Lab Sample ID: 20000706-192

Level (low/med): LOW

Date Received: 07/06/00

Solids: _____

Concentration Units (ug/L or mg/kg dry weight):

UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	B		F
7440-39-3	Barium	21.1	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	4630			P
7439-92-1	Lead	3.6			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	78.9			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	4.6	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	8880			P
7440-28-0	Thallium	0.50	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	15.5	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS Clarity After: CLEAR

Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_7

Lab Name: H2M_LABS, INC. _____

Contract: _____

Lab Code: H2MLAB Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER__

Lab Sample ID: 20000706-193

Level (low/med): LOW__

Date Received: 07/06/00_

Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	1.1	B		F
7440-39-3	Barium	19.5	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	1560			P
7439-92-1	Lead	0.50	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	58.5			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	0.50	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	4.9	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR__

Texture: _____

Color After: COLORLESS Clarity After: CLEAR__

Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000 _____

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_10

Lab Name: H2M_LABS, INC.

Contract: _____

Lab Code: H2MLAB

Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER

Lab Sample ID: 20000706-194

Level (low/med): LOW

Date Received: 07/06/00

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	16.8	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	335			P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	10.7	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	0.50	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	18.2	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS Clarity After: CLEAR

Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_11

Lab Name: H2M_LABS, INC. _____

Contract: _____

Lab Code: H2MLAB

Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER__

Lab Sample ID: 20000706-195

Level (low/med): LOW__

Date Received: 07/06/00_

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight):

UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	32.1	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	14.3	B		P
7439-92-1	Lead	0.80	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	0.56	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U	W	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	14400			P
7440-28-0	Thallium	0.60	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	5.3	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS_ Clarity Before: CLEAR__

Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__

Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000 _____

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12

Lab Name: H2M_LABS, INC. _____

Contract: _____

Lab Code: H2MLAB

Case No.: _____

SAS No.: _____

SDG No.: BNLM097

Matrix (soil/water): WATER__

Lab Sample ID: 20000706-196

Level (low/med): LOW__

Date Received: 07/06/00_

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L__

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	18.2	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	20.9	B		P
7439-92-1	Lead	0.50	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	11500			P
7440-28-0	Thallium	0.80	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1.7	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR__

Texture: _____

Color After: COLORLESS Clarity After: CLEAR__

Artifacts: _____

Comments:

DATE REPORTED: AUGUST 12, 2000 _____