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June 7, 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 May 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 May 2000.
- Attachment II: May 2000 Biweekly Water Quality Monitoring Data for BNL Potable Water Wells.
- Attachment III: 2000 Second Quarter Radiological Analyses for the BNL Potable Water Wells.

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 (QA) program, the SCDHS Community Water Supply Monitoring Requirements, and the BNL Potable Water System Sampling Plan. Plant Engineering Division (PE) personnel using standard operating procedures collect routine monitoring samples; a contractor laboratory using standard methods of analysis performs the subsequent analyses. The QA documentation is available from the Environmental Services Division (ESD) and PE 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 (ESD) at (631) 344-3148, M. Allocco (ESD) at (631) 344-3166, or W. Chaloupka (PE) at (631) 344-7136.

Sincerely,



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

EAZ/MA:rt

Attachments: As noted

cc: K. Brog w/o attachments
W. Chaloupka w/attachments
- R. Lee w/attachments
- E. Murphy w/attachments
P. Ponturo w/o attachments
L. Ross w/o attachments
R. Simeone w/attachments

EC4120.00



ATTACHMENT I

**Brookhaven National Laboratory
Potable Water Supply**

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

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : MAY 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

Date	CHLORINATION			pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite Gallons	Free Cl2 Residual mg/l	Lime		
				Sodium Hydroxide	Totalizer	
0	60/40+70	0	0.7	7.4	11810236	
1,598	60/98	12	1.1	7.58	11811834	
1,560	60/78	20	0.56	7.4	11813394	
1,331	60/70	8	0.94	7.4	11814725	
1,316	60/60	10	1.6	7.5	11816041	
0						
0						
4,754	0/88	32	1	7.4	11820795	
1,543	5/74	14	0.35	7.8	11822338	
1,745	5/60	14	0.86	7.5	11824083	
900	5+95/55+152	5	0.72	7.4	11824983	
1,587	100/190	17	0.85	7.7	11826570	
0						
0						
2,747	115/165	25	0.88	7.5	11829317	
1,545	115/154	11	0.82	7.4	11830862	
1,613	115/142	12	0.94	7.3	11832475	
1,643	115/131	11	0.75	7.4	11834118	
1,559	115/120	11	0.8	7.5	11835677	
0						
0						
4,466	115/85	35	0.8	7.2	11840143	
1,671	115/75	10	0.7	7.5	11841814	
1,508	115/65	10	0.76	7.7	11843322	
1,618	115/55	10	0.7	7.8	11844940	
1,608	60/100	10	0.7	7.3	11846548	
0						
0						
4,417	60/70	30	0.7	7.7	11850965	
1,304	60/58+115	16	0.76	7.5	11852269	
1,574	60/165	8	0.83	7.2	11853843	
OT	43,607	331				
VG	1406.68	10.68	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: [Signature]

Date: 6-2-00

Title: WATER SYSTEMS SUPERVISOR

Cont. #: 05650

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : MAY 2000

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

Date	CHLORINATION				pH	
	Treated of Water	Liquid Sodium Hypochlorite Gallons	Free Cl ₂ Residual per 24hrs	Free Cl ₂ Residual mg/l	Lime Sodium Hydroxide	Totalizer Daily Totalizer
						1336822
	0	60	0	0	5.8	1336822
	590	60	0	0	6	1337412
	593	60	0	0	6	1338005
	642	60	0	0	5.9	1338647
	580	60	0	0	5.9	1339227
	0					
	0					
	2,058	60	0	0.2	5.9	1341285
	668	60	0	NR	NR	1341953
	794	60	0	NR	NR	1342747
	573	60	0	0.09	6	1343320
	1,157	60	0	0.13	6	1344477
	0					
	0					
	1,035	60	0	NR	NR	1345512
	683	60	0	NR	NR	1346195
	625	60	0	NR	NR	1346820
	678	60	0	NR	NR	1347498
	880	60	0	NR	NR	1348378
	0					
	0					
	1,656	60	0	NR	NR	1350034
	741	60	0	0	6.3	1350775
	634	60	0	0	5.9	1351409
	745	60	0	0	6.3	1352154
	798	60	0	0	6.3	1352952
	0					
	0					
	1,623	60	0	0	6.3	1354575
	468	60	0	0	5.8	1355043
	524	60	0	0	5.8	1355567
	18,745		0			
	604.68		0.00	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. A. Ross

Date 6-2-00

Title WATER SYSTEMS SUPERVISOR

Cert. # 05650

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : MAY 2000

LOCATION: WELL NO. 6

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

Month	CHLORINATION				pH		Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂ Residual	Lime Sodium Hydroxide	Totalizer	
		K Gals	Gallons	Cl ₂ use per 24hrs	mg/l		
1	0	72	0	0.07	5.8	23376	
2	533	65	7	1.1	6	23909	
3	526	55	10	0.01	6	24435	
4	467	48+92=140	5	0.06	5.9	24902	
5	236	138	2	0.09	5.9	25138	
6	0						
7	0						
8	1,083	120	18	0.2	5.9	26221	
9	491	112	8	NR	NR	26712	
10	605	110+60	2	0.09	5.9	27317	
11	512	162+47=209	8	0.09	6	27829	
12	1,114	195	14	0.13	6	28943	
13	0						
14	0						
15	2,555	160	35	NR	NR	31498	
16	590	151	9	0.35	6	32088	
17	196	150	1	NR	NR	32284	
18	454	140	10	NR	NR	32738	
19	602	135+65	5	NR	NR	33340	
20	0						
21	0						
22	1,089	180	20	NR	NR	34429	
23	217	180	0	0	6.3	34646	
24	330	175	5	0	5.8	34976	
25	166	173	2	0	6.3	35142	
26	293	170	3	0	6.3	35435	
27	0						
28	0						
29	1,161	152	18	0	6.3	36596	
30	416	146	6	0	5.8	37012	
31	476	144	2	0	5.8	37488	
TOT	14,112		190			0	
AVG.	455.23		6.13	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 M. J. Pass

Date 6-2-00

Title WATER SYSTEMS SUPERVISOR

Cert. # 05650

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : MAY 2000

LOCATION: WELL NO. 7

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

Date	CHLORINATION			pH		Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂ Residual	Lime Sodium Hydroxide	
		Gallons	Cl ₂ use per 24hrs			
	K Gals	60		mg/l		39426
0	60	0	0.07	5.8		39426
1,009	40+150	20	1.1	6		40435
997	180	10	0.04	6		41432
973	150/65=215	30	0.06	5.9		42405
940	195	20	0.09	5.9		43345
0						
0						
4,422	120	75	0.2	5.9		47767
1,094	100	20	NR	NR		48861
928	78+130	22	0.09	5.9		49789
408	195	13	0.09	6		50197
0	195	0	0.13	6		50197
0						
0						
0	195	0	NR	NR		50197
144	169	25	0.35	6		50341
728	135	34	NR	NR		51069
1,057	115	20	0.3	6		52126
509	107+103	8	NR	NR		52635
0						
0						
2,762	155	55	NR	NR		55397
1,214	135	20	0	6.3		56611
1,185	110	25	0	5.8		57796
1,322	90+90	20	0	6.3		59118
1,207	160	20	0	6.3		60325
0						
0						
3,110	121	39	0	6.3		63435
816	111	10	0	5.8		64251
976	98	13	0	5.8		65227
25,801		500				0
832.29		16.13	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 JO ROSS

Date: 6-2-00

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : MAY 2000

LOCATION: WELL NO. 10

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

Date	CHLORINATION				pH		Totalizer Daily Totalizer 763512
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂ Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl ₂ use per 24hrs				
1	0	60	0	NR	NR	763512	
2	0	60	0	NR	NR	763512	
3	0	60	0	NR	NR	763512	
4	0	60	0	NR	NR	763512	
5	0	60	0	NR	NR	763512	
6	0						
7	0						
8	0	60	0	NR	NR	763512	
9	0	60	0	NR	NR	763512	
10	0	60	0	NR	NR	763512	
11	0	60	0	NR	NR	763512	
12	0	60	0	NR	NR	763512	
13	0						
14	0						
15	0	60	0	NR	NR	763512	
16	0	60	0	NR	NR	763512	
17	0	60	0	NR	NR	763512	
18	0	60	0	NR	NR	763512	
19	0	60	0	NR	NR	763512	
20	0						
21	0						
22	0	60	0	NR	NR	763512	
23	0	60	0	NR	NR	763512	
24	0	60	0	NR	NR	763512	
25	0	60	0	NR	NR	763512	
26	96	60	0	NR	NR	763608	
27	0						
28	0						
29	0	58	2	NR	NR	763608	
30	0	58	0	NR	NR	763608	
31	0	58	0	NR	NR	763608	
OT	96		2				
∑G.	3.10		0.06	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 JO Ross

Date: 6-2-00

Title: WATER SYSTEMS SUPERVISOR

Car. #: 85650

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD : MAY 2000
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LOCATION: WELL NO. 11

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

Date	CHLORINATION				pH	
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl ₂ Residual mg/l	Lime Sodium Hydroxide	Totalizer Daily Totalizer
		Gallons	Cl ₂ use per 24hrs			
0	168	0	0.9	7.9	310133	
92	168	0	0.7	8	310225	
398	168	0	NR	NR	310623	
496	168	0	0.6	8	311119	
168	168	0	NR	NR	311287	
0						
0						
5	168	0	0.25	7.2	311292	
546	168	0	0.21	6.5	311838	
437	168	0	NR	NR	312275	
141	168	0	NR	NR	312416	
0	168	0	NR	NR	312416	
0						
0						
5	168	0	NR	NR	312421	
6	168	0	NR	NR	312427	
117	165	3	NR	NR	312544	
130	164	1	0.6	7.8	312674	
121	164	0	NR	NR	312795	
0						
0						
265	164	0	NR	NR	313060	
31	164	0	0.4	7.4	313091	
148	163	1	NR	NR	313239	
233	163	0	0.9	7.1	313472	
453	163	0	NR	NR	313925	
0						
0						
525	163	0	NR	NR	314450	
165	163	0	0.6	7.9	314615	
170	163	0	0.7	7.8	314785	
4,652		5				
150.06		0.16	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 niturb) 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 De Rose

Date: 6-2-00

Title WATER SYSTEMS SUPERVISOR

Cert. #: 05650

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD : MAY 2000

LOCATION: WELL NO. 12

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

Month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
		110					224597
1	0	110	0	0.7	7.9		224597
2	23	110	0	0.5	8		224620
3	0	110	0	NR	NR		224620
4	452	109	1	0.7	8		225072
5	116	109	0	NR	NR		225188
6	0						
7	0						
8	342	105	4	0.48	8		225530
9	379	101	4	0.34	7.8		225909
10	599	98-98=0	3	0.24	7.6		226508
11	275	+100	0	NR	NR		226783
12	173	100	0	0.62	7.5		226956
13	0						
14	0						
15	2 200	90	10	NR	NR		229156
16	216	85	5	0.5	7.6		229372
17	79	85	0	NR	NR		229451
18	396	81	4	0.74	8		229847
19	254	80+25	1	NR	NR		230101
20	0						
21	0						
22	0	105	0	NR	NR		230101
23	361	103	2	0.5	7		230462
24	7	102	1	NR	NR		230469
25	0	100	2	0.6	7.8		230469
26	7	100	0	NR	NR		230476
27	0						
28	0						
29	0	100	0	NR	NR		230476
30	0	100	0	0.7	8		230476
31	7	100	0	0.9	7.8		230483
TOT	5,886		37				
AVG.	189.87		1.19	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 JO Ross

Date: 6-2-00

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

575 Broad Hollow Road, Melville, NY 11747-5076
(631)694-3040 FAX:(631)420-8436 NYSDOH ID# 10478

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

Received : 04-MAY-2000 15:10
Collected By : PP99
Sample Type : Potable Water

Copies To : SCHD

Lab Number	Collected	Location	Units Method Limits	<u>I. COLL. BACT.</u>	<u>E. COLI</u>	<u>CHLORINE RESIDUAL</u>
20000504-173	04-MAY-2000 08:15	DUPLICATE		NONE SM#9223 NEGATIVE	NONE SM#9223 ABSENT	mg% SM#4500 C1G N/A
ROUTINE				NEGATIVE 05-MAY-2000 10:30	ABSENT 05-MAY-2000 10:30	0.6 04-MAY-2000
DISTRIBUTION						

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

Date Issued : 05/11/2000

ORIGINAL
Report for client information only

Joann M. Slavin
Laboratory Director