Allocs

Environmental Services Division

BROOKHAVEN
NATIONAL LABORATORY

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managed by Brookhaven Science Associates
for the U.S. Department of Energy

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August 8, 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 July 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 and Quarterly Bacteriological and Operational Reports for July 2000.

Attachment II: July 2000 Biweekly Water Quality Monitoring Data for 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 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,

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, SCDHS, w/o attachments
L. Ross w/o attachments
R. Simeone w/attachments

EC61ER.00

THE ACADEMY OF BOARD CERTIFIED ENVIRONMENTAL PROFESSIONALS
CEP
ELIZABETH A. ZIMMERMAN
0379

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

| PROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : JULY 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 ✓

| | CHLORINATION | | | | pH | |
|---|---|---|---|---|---|---|
| | Treated | Liquid Sodium Hypochlorite | | Free Cl2 | __ Lime | Totalizer |
| ay of | Water | Gallons | Cl2 use | Residual | __ Sodium | Daily Totalizer |
| nonth | K Gals | 112 | per 24hrs | mg/l | Hydroxide | 11898605 |
| 1 | 0 | | | | | |
| 2 | 3,339 | 170 | | 0.53 | 7 | 11901944 |
| 3 | 0 | | | | | |
| 4 | 0 | | | | | |
| 5 | 5,069 | 132 | 38 | 0.5 | 7.2 | 11907013 |
| 6 | 1,348 | 122 | 10 | 0.5 | 7.6 | 11908361 |
| 7 | 1,326 | 112 | 10 | 0.5 | 7.9 | 11909687 |
| 8 | 0 | | | | | |
| 9 | 0 | | | | | |
| 10 | 4,060 | 91 | 11 | 0.72 | 7.1 | 11913747 |
| 11 | 1,552 | 82 | 9 | 0.58 | 7.4 | 11915299 |
| 12 | 1,559 | 78 | 4 | 0.69 | 7.5 | 11916858 |
| 13 | 1,560 | 68+141 | 10 | 0.77 | 7.4 | 11918418 |
| 14 | 1,559 | 197 | 22 | 0.55 | 7.5 | 11919977 |
| 15 | 0 | | | | | |
| 16 | 0 | | | | | |
| 17 | 4,539 | 168 | 29 | 1 | 7.5 | 11924516 |
| 18 | 1,530 | 162 | 6 | 0.53 | 7.6 | 11926046 |
| 19 | 1,605 | 152 | 10 | 0.61 | 7.7 | 11927651 |
| 20 | 1,598 | 142 | 10 | 0.68 | 7.7 | 11929249 |
| 21 | 1,601 | 131 | 11 | 0.85 | 7.7 | 11930850 |
| 22 | 0 | | | | | |
| 23 | 0 | | | | | |
| 24 | 4,844 | 100 | 31 | 0.5 | 7.6 | 11935694 |
| 25 | 1,649 | 88 | 12 | 0.5 | 7.8 | 11937343 |
| 26 | 1,562 | 79 | 9 | 1.04 | 7.6 | 11938905 |
| 27 | 1,597 | 68+132 | 11 | 0.53 | 7.5 | 11940502 |
| 28 | 1,617 | 191 | 8 | 0.57 | 7.7 | 11942119 |
| 29 | 0 | | | | | |
| 30 | 0 | | | | | |
| 31 | 4,763 | 155 | 36 | 0.82 | 7.7 | 11946882 |
| TOT | 48,277 | | 287 | | | |
| AVG. | 1557.32 | | 9.26 | 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: [illegible]

Title: Asst Mgr Ops

Date: 3 AUG 00

Cert. #: 10461

# ATTACHMENT I

## Brookhaven National Laboratory
## Potable Water Supply

## Monthly and Quarterly Bacteriological and Operational Reports for July 2000

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

| PROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : July 2000 |
|---|---|---|---|

LOCATION: WELL NO. 4

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 ✓

| | CHLORINATION | | | | pH | |
|---|---|---|---|---|---|---|
| | Treated | Liquid Sodium Hypochlorite | | Free Cl2 | __ Lime | Totalizer |
| Day of | Water | Gallons | Cl2 use | Residual | __ Sodium | Daily Totalizer |
| month | K Gals | 142 | per 24hrs | mg/l | Hydroxide | 1374144 |
| 1 | 0 | | | | | |
| 2 | 1,274 | 135 | 7 | 0.53 | 7 | 1375418 |
| 3 | 0 | | | | | |
| 4 | 0 | | | | | |
| 5 | 1,726 | 122 | 13 | 0 | 5.8 | 1377144 |
| 6 | 805 | 112 | 10 | 0 | 5.8 | 1377949 |
| 7 | 595 | 102+28 | 10 | 0.1 | 5.8 | 1378544 |
| 8 | 0 | | | | | |
| 9 | 0 | | | | | |
| 10 | 1,598 | 76 | 54 | 0.1 | 5.8 | 1380142 |
| 11 | 649 | 60 | 16 | 0.56 | 5.9 | 1380791 |
| 12 | 604 | 45 | 15 | 0.84 | 5.7 | 1381395 |
| 13 | 732 | 30+110 | 10 | 0.02 | 5.8 | 1382127 |
| 14 | 577 | 125 | 15 | 0.02 | 5.8 | 1382704 |
| 15 | 0 | | | | | |
| 16 | 0 | | | | | |
| 17 | 2,054 | 82+85 | 43 | 0.16 | 5.9 | 1384758 |
| 18 | 569 | 153 | 14 | 0.26 | 6 | 1385327 |
| 19 | 642 | 140 | 2 | 0.03 | 6.1 | 1385969 |
| 20 | 683 | 130 | 10 | NR | NR | 1386652 |
| 21 | 554 | 120 | 10 | 0.33 | 6.1 | 1387206 |
| 22 | 0 | | | | | |
| 23 | 0 | | | | | |
| 24 | 2,118 | 80 | 40 | 0.2 | 5.9 | 1389324 |
| 25 | 599 | 65 | 15 | 0.2 | 5.9 | 1389923 |
| 26 | 462 | 50 | 15 | 0.16 | 6.1 | 1390385 |
| 27 | 584 | 40 | 10 | 0.16 | 6 | 1390969 |
| 28 | 620 | 25+160 | 15 | 0.03 | 6 | 1391589 |
| 29 | 0 | | | | | |
| 30 | 0 | | | | | |
| 31 | 1,839 | 150 | 35 | 0.02 | 6.1 | 1393428 |
| TOT | 19,284 | | 359 | | | |
| AVG. | 622.06 | | 11.58 | 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: Will X Chalmers

Date: 3 AUG 00

Title: Asst. mgr operations

Cert. #: 10461

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

| PROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : July 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 ✓

| | CHLORINATION | | | | pH | |
|---|---|---|---|---|---|---|
| | Treated | Liquid Sodium Hypochlorite | | Free Cl2 | __ Lime | Totalizer |
| Day of | Water | Gallons | Cl2 use | Residual | __ Sodium | Daily Totalizer |
| month | K Gals | 158 | per 24hrs | mg/l | Hydroxide | 43683 |
| 1 | 0 | | | | | |
| 2 | 797 | 158 | 0 | 0.53 | 7 | 44480 |
| 3 | 0 | | | | | |
| 4 | 0 | | | | | |
| 5 | 1,572 | 158 | 0 | 0 | 5.9 | 46052 |
| 6 | 1,187 | 134 | 24 | 0 | 5.8 | 47239 |
| 7 | 1,345 | 110+60 | 24 | 0.15 | 5.8 | 48584 |
| 8 | 0 | | | | | |
| 9 | 0 | | | | | |
| 10 | 0 | 170 | 0 | 0.1 | 5.8 | 48584 |
| 11 | 366 | 163 | 7 | 0.56 | 5.9 | 48950 |
| 12 | 264 | 160 | 3 | 0.84 | 5.7 | 49214 |
| 13 | 368 | 150 | 10 | 0.02 | 5.8 | 49582 |
| 14 | 472 | 143 | 7 | 0.02 | 5.8 | 50054 |
| 15 | 0 | | | | | |
| 16 | 0 | | | | | |
| 17 | 1,257 | 120 | 23 | 0.16 | 5.9 | 51311 |
| 18 | 149 | 120 | 0 | 0.26 | 6 | 51460 |
| 19 | 315 | 112 | 8 | 0.03 | 6.1 | 51775 |
| 20 | 267 | 110 | 2 | 0.06 | 6 | 52042 |
| 21 | 182 | 108 | 2 | 0.33 | 6.1 | 52224 |
| 22 | 0 | | | | | |
| 23 | 0 | | | | | |
| 24 | 632 | 99 | 9 | 0.2 | 5.9 | 52856 |
| 25 | 278 | 90 | 9 | 0.2 | 5.9 | 53134 |
| 26 | 127 | 90 | 0 | 0.16 | 6.1 | 53261 |
| 27 | 287 | 84 | 6 | 0.16 | 6 | 53548 |
| 28 | 261 | 80 | 4 | 0.03 | 6 | 53809 |
| 29 | 0 | | | | | |
| 30 | 0 | | | | | |
| 31 | 730 | 70 | 10 | 0.02 | 6.1 | 54539 |
| TOT | 10,856 | | 148 | | | 0 |
| AVG. | 350.19 | | 4.77 | 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: Will L Chalmyk

Date: 3 AUG 00

Title: ASST. MGR OPERATIONS

Cert. #: 10461

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

| PROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : JULY 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 ✓

| | CHLORINATION | | | | pH | |
|---|---|---|---|---|---|---|
| | Treated | Liquid Sodium Hypochlorite | | Free Cl2 | __ Lime | Totalizer |
| ay of | Water | Gallons | Cl2 use | Residual | __ Sodium | Daily Totalizer |
| onth | K Gals | 185 | per 24hrs | mg/l | Hydroxide | 99709 |
| 1 | 0 | | | | | |
| 2 | 2,305 | 160 | 25 | 0.53 | 7 | 102014 |
| 3 | 0 | | | | | |
| 4 | 0 | | | | | |
| 5 | 3,354 | 136 | 24 | 0 | 5.9 | 105368 |
| 6 | 502 | 122 | 14 | 0 | 5.8 | 105870 |
| 7 | 344 | 120 | 2 | 0 | 5.8 | 106214 |
| 8 | 0 | | | | | |
| 9 | 0 | | | | | |
| 0 | 3,124 | 42+158 | 78 | 0.1 | 5.8 | 109338 |
| 1 | 1,148 | 171 | 29 | 0.56 | 5.9 | 110486 |
| 2 | 1,293 | 145 | 26 | 0.84 | 5.7 | 111779 |
| 3 | 1,200 | 123 | 22 | 0.02 | 5.8 | 145011 |
| 4 | 978 | 110 | 13 | 0.02 | 5.8 | 145989 |
| 5 | 0 | | | | | |
| 6 | 0 | | | | | |
| 7 | 3,659 | 50+150 | 60 | 0.16 | 5.9 | 149648 |
| 8 | 1,225 | 189 | 11 | 0.26 | 6 | 150873 |
| 9 | 1,151 | 177 | 12 | 0.03 | 6.1 | 152024 |
| | 1,269 | 161 | 16 | 0.06 | 6 | 153293 |
| | 1,184 | 150 | 11 | 0.33 | 6.1 | 154477 |
| | 0 | | | | | |
| | 0 | | | | | |
| | 3,833 | 109 | 41 | 0.2 | 5.9 | 158310 |
| | 1,203 | 93 | 16 | 0.2 | 5.9 | 159513 |
| | 1,200 | 80 | 13 | 0.16 | 6.1 | 192511 |
| | 1,135 | 62 | 18 | 0.16 | 6 | 193646 |
| | 1,208 | 50+135 | 12 | 0.03 | 6 | 194854 |
| | 0 | | | | | |
| | 0 | | | | | |
| | 2,482 | 150 | 35 | 0.02 | 6.1 | 197336 ✓ |
| | 33,797 | | 478 | | | 0 |
| | 1090.23 | | 15.42 | 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: Wiel & Chalmsle

Date: 3 AUG 00

Title: ASST. MGR. OPERATIONS

Cert. #: 10461

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

| PROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : July 2000 |
|---|---|---|---|

LOCATION: WELL NO. 10

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 ✓

| | CHLORINATION | | | | pH | |
|---|---|---|---|---|---|---|
| | Treated | Liquid Sodium Hypochlorite | | Free Cl2 | __ Lime | Totalizer |
| ay of | Water | Gallons | Cl2 use | Residual | __ Sodium | Daily Totalizer |
| nonth | K Gals | 59 | per 24hrs | mg/l | Hydroxide | 763710 |
| 1 | 0 | | | | | |
| 2 | 0 | 59 | 0 | NR | NR | 763710 |
| 3 | 0 | | | | | |
| 4 | 0 | | | | | |
| 5 | 0 | 59 | 0 | NR | NR | 763710 |
| 6 | 6 | 59 | 0 | NR | NR | 763716 |
| 7 | 5 | 59 | 0 | NR | NR | 763721 |
| 8 | 0 | | | | | |
| 9 | 0 | | | | | |
| 10 | 0 | 59 | 0 | 0.3 | 7.8 | 763721 |
| 11 | 5 | 59 | 0 | 0.3 | 7.8 | 763726 |
| 12 | 2 | 59 | 0 | 0.4 | 7.8 | 763728 |
| 13 | 0 | 59 | 0 | 0.4 | 7.8 | 763728 |
| 14 | 0 | 59 | 0 | 0.4 | 7.8 | 763728 |
| 15 | 0 | | | | | |
| 16 | 0 | | | | | |
| 17 | 6 | 59 | 0 | NR | NR | 763734 |
| 18 | 0 | 59 | 0 | NR | NR | 763734 |
| 19 | 0 | 59 | 0 | NR | NR | 763734 |
| 20 | 0 | 59 | 0 | NR | NR | 763734 |
| 21 | 0 | 59 | 0 | NR | NR | 763734 |
| 22 | 0 | | | | | |
| 23 | 0 | | | | | |
| 24 | 0 | 59 | 0 | NR | NR | 763734 |
| 25 | 82 | 59 | 0 | NR | NR | 763816 |
| 26 | 2 | 59 | 0 | NR | NR | 763818 |
| 27 | 0 | 59 | 0 | NR | NR | 763818 |
| 28 | 0 | 59 | 0 | NR | NR | 763818 |
| 29 | 0 | | | | | |
| 30 | 0 | | | | | |
| 31 | 0 | 59 | 0 | NR | NR | 763818 |
| TOT | 108 | | 0 | | | 0 |
| AVG | 3.48 | | 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: William L. Chalupka

Date: 3 AUG 00

Title: ASST. MGR OPERATIONS

Cert. # 10461

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

ıblic Water Supply Protection

| ROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : July 2000 |
|---|---|---|---|

·CATION: WELL NO. 11

ɔurce: Ground Water

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

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

| | CHLORINATION | | | | pH | |
|---|---|---|---|---|---|---|
| | Treated | Liquid Sodium Hypochlorite | | Free Cl2 | __ Lime | Totalizer |
| of | Water | Gallons | Cl2 use | Residual | __ Sodium | Daily Totalizer |
| :h | K Gals | 145 | per 24hrs | mg/l | Hydroxide | 319167 |
| | 0 | | | | | |
| | 0 | 145 | 0 | NR | NR | 319167 |
| | 0 | | | | | |
| | 0 | | | | | |
| | 3 | 145 | 0 | 0.5 | 7.4 | 319170 |
| | 7 | 145 | 0 | 0.4 | 7.6 | 319177 |
| | 192 | 142+53 | 3 | 0.4 | 7.4 | 319369 |
| | 0 | | | | | |
| | 0 | | | | | |
| ) | 0 | 195 | 0 | 0.4 | 8 | 319369 |
| 1 | 9 | 195 | 0 | 0.5 | 8 | 319378 |
| 2 | 2 | 195 | 0 | 0.5 | 8 | 319380 |
| 3 | 0 | 195 | 0 | 0.5 | 8 | 319380 |
| 4 | 310 | 195 | 0 | 0.5 | 8 | 319690 |
| 5 | 0 | | | | | |
| 6 | 0 | | | | | |
| 7 | 654 | 195 | 0 | 0.55 | 8.2 | 320344 |
| 8 | 18 | 195 | 0 | 1 | 8 | 320362 |
| 9 | 648 | 190 | 5 | 0.58 | 8.4 | 321010 |
| 0 | 496 | 188 | 2 | 1 | 8.2 | 321506 |
| 1 | 263 | 185 | 3 | 0.84 | 8.2 | 321769 |
| 2 | 0 | | | | | |
| 3 | 0 | | | | | |
| 4 | 1,079 | 177 | 8 | 0.5 | 8.2 | 322848 |
| 25 | 545 | 172 | 5 | 0.7 | 8.1 | 323393 |
| 26 | 220 | 170 | 2 | NR | NR | 323613 |
| 27 | 311 | 170 | 0 | 0.4 | 8.2 | 323924 |
| 28 | 185 | 168 | 2 | NR | NR | 324109 |
| 29 | 0 | | | | | |
| 30 | 0 | | | | | |
| 31 | 0 | 168 | 0 | 0.8 | 8.1 | 324109 |
| TOT | 4,942 | | 30 | | | |
| VG. | 159.42 | | 0.97 | 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 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: Will L Chalmette

Date: 3 AUG 00

Title: ASST. MGR - OPERATIONS

Cert. #: 10461

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

| PROGRAM CODE 169 | STATION 11515100 | SUFFOLK COUNTY | REPORTING PERIOD : July 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 ✓

| Day of month | CHLORINATION: Treated Water K Gals | Liquid Sodium Hypochlorite: Gallons 160 | Liquid Sodium Hypochlorite: Cl2 use per 24hrs | Free Cl2 Residual mg/l | pH: Lime Sodium Hydroxide | Totalizer: Daily Totalizer 239145 |
|---|---|---|---|---|---|---|
| 1 | 0 | | | | | |
| 2 | 449 | 160 | 0 | 0.6 | 8 | 239594 |
| 3 | 0 | | | | | |
| 4 | 0 | | | | | |
| 5 | 586 | 151 | 9 | 0.6 | 7.5 | 240180 |
| 6 | 15 | 151 | 0 | 0.5 | 8 | 240195 |
| 7 | 20 | 151 | 0 | 0.5 | 7.7 | 240215 |
| 8 | 0 | | | | | |
| 9 | 0 | | | | | |
| 10 | 0 | 151 | 0 | 0.4 | 8 | 240215 |
| 11 | 8 | 151 | 0 | NR | NR | 240223 |
| 12 | 0 | 151 | 0 | NR | NR | 240223 |
| 13 | 0 | 151 | 0 | NR | NR | 240223 |
| 14 | 0 | 151 | 0 | NR | NR | 240223 |
| 15 | 0 | | | | | |
| 16 | 0 | | | | | |
| 17 | 0 | 151 | 0 | NR | NR | 240223 |
| 18 | 0 | 151 | 0 | NR | NR | 240223 |
| 19 | 0 | 151 | 0 | NR | NR | 240223 |
| 20 | 0 | 151 | 0 | NR | NR | 240223 |
| 21 | 0 | 151 | 0 | NR | NR | 240223 |
| 22 | 0 | | | | | |
| 23 | 0 | | | | | |
| 24 | 0 | 151 | 0 | NR | NR | 240223 |
| 25 | 0 | 151 | 0 | NR | NR | 240223 |
| 26 | 2 | 151 | 0 | NR | NR | 240225 |
| 27 | 0 | 151 | 0 | NR | NR | 240225 |
| 28 | 35 | 151 | 0 | 0.5 | 7.6 | 240260 |
| 29 | 0 | | | | | |
| 30 | 0 | | | | | |
| 31 | 639 | 148 | 3 | 0.3 | 8 | 240899 |
| TOT | 1,754 | | 12 | | | |
| AVG. | 56.58 | | 0.39 | 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: William C Dolinski

Date: 3 AUG 00

Title: ASST. MGR. OPERATIONS

Cert. #: 10461

8/2/00
Pump Data

# MONTHLY GALLONAGE REPORT
Jul2000

| Date | Well 4 | Well 6 | Well 7 | Well10 | Well11 | Well12 | Daily Total |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 1,274 | 797 | 2,305 | 0 | 0 | 449 | 4,825 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 1,726 | 1,572 | 3,354 | 0 | 3 | 586 | 7,241 |
| 6 | 805 | 1,187 | 502 | 6 | 7 | 15 | 2,522 |
| 7 | 595 | 1,345 | 344 | 5 | 192 | 20 | 2,501 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 1,598 | 0 | 3,124 | 0 | 0 | 0 | 4,722 |
| 11 | 649 | 366 | 1,148 | 5 | 9 | 8 | 2,185 |
| 12 | 604 | 264 | 1,293 | 2 | 2 | 0 | 2,165 |
| 13 | 732 | 368 | 1,200 | 0 | 0 | 0 | 2,300 |
| 14 | 577 | 472 | 978 | 0 | 310 | 0 | 2,337 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 2,054 | 1,257 | 3,659 | 6 | 654 | 0 | 7,630 |
| 18 | 569 | 149 | 1,225 | 0 | 18 | 0 | 1,961 |
| 19 | 642 | 315 | 1,151 | 0 | 648 | 0 | 2,756 |
| 20 | 683 | 267 | 1,269 | 0 | 496 | 0 | 2,715 |
| 21 | 554 | 182 | 1,184 | 0 | 263 | 0 | 2,183 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | 2,118 | 632 | 3,833 | 0 | 1,079 | 0 | 7,662 |
| 25 | 599 | 278 | 1,203 | 82 | 545 | 0 | 2,707 |
| 26 | 462 | 127 | 1,200 | 2 | 220 | 2 | 2,013 |
| 27 | 584 | 287 | 1,135 | 0 | 311 | 0 | 2,317 |
| 28 | 620 | 261 | 1,208 | 0 | 185 | 35 | 2,309 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31 | 1,839 | 730 | 2,482 | 0 | 0 | 639 | 5,690 |
| Total | 19,284 | 10,856 | 33,797 | 108 | 4,942 | 1,754 | 70,741 |

| | Totalizer This Month | Totalizer Last Month | Total(x1,000) Gallons |
|---|---|---|---|
| Well 4 | 1,393,428 | 1,374,144 | 19,284 |
| Well 6 | 54,539 | 43,683 | 10,856 |
| Well 7 | 197,336 ✓ | 99,709 | ~~97,627~~ 33,797 * |
| Well 10 | 763,818 | 763,710 | 108 |
| Well 11 | 324,109 | 319,167 | 4,942 |
| Well 12 | 240,899 | 239,145 | 1,754 |
| AGS Water Supply Meter | 142,200 | 130,346 | 11854.00 |
| Medical Reactor - Well 105 | 76,812,240 | 71,729,840 | 5082.40 |
| Biology Building - Well 9 | 5,689,130 | 5,676,070 | 13.06 |

* Mechanical problems encountered with totalizer

**H2M LABS, INC.**
575 Broad Hollow Road, Melville, NY 11747-5076
(631)694-3040 , FAX:(631)420-8436 NYSDOH ID# 10478



# LABORATORY RESULTS

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

Received : 06-JUL-2000 15:30
Collected By : RL99
Sample Type : Potable Water

Copies To : SCHD
Report Issued : 07/12/2000

| Lab Number | Collected | Location | Units<br>Method<br>Limits | T.COLI. BACT.<br>NONE<br>SM#9223<br>NEGATIVE | E.COLI.<br>NONE<br>SM#9223<br>ABSENT | CHLORINE RESIDUAL<br>mg/L<br>SM#4500-C1G<br>N/A |
|---|---|---|---|---|---|---|
| 20000706-169<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>08:15 | B-49 WATER TOWER | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 0.5<br>06-JUL-2000 |
| 20000706-170<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>08:45 | B-640 WATER TOWER | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 1.0<br>06-JUL-2000 |
| 20000706-171<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>09:00 | B-1005 RHIC | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 0.7<br>06-JUL-2000 |
| 20000706-172<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>09:15 | B-363 APARTMENT LAUNDRY | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 0.2<br>06-JUL-2000 |
| 20000706-173<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>10:15 | B-930 LINAC | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 0.4<br>06-JUL-2000 |
| 20000706-174<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>10:25 | B-490 OUTPATIENT CLINIC | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 0.3<br>06-JUL-2000 |
| 20000706-175<br>ROUTINE<br>DISTRIBUTION | 06-JUL-2000<br>10:55 | B-490-BLOCK11 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 | 0.2<br>06-JUL-2000 |

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

Re-Print Date 08/07/2000

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## LABORATORY RESULTS

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

Received : 06-JUL-2000 15:30
Collected By : RL99
Sample Type : Potable Water

Copies To : SCHD
Report Issued : 07/12/2000

| Lab Number | Collected | Location | Units<br>Method<br>Limits | T.COLI. BACT.<br>NONE<br>SM9223<br>NEGATIVE | E.COLI.<br>NONE<br>SM9223<br>ABSENT |
|---|---|---|---|---|---|
| 20000706-176<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>11:15 | WELL-4 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-177<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>11:10 | WELL-6 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-178<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>11:00 | WELL-7 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-179<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>12:50 | WELL-10 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-180<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>12:35 | WELL-11 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-181<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>11:25 | WELL-12 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-182<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>13:30 | WTF-PACKED TOWER-648 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |

Re-Print Date 08/07/2000

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(631)694-3040 . FAX:(631)420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

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

Received : 06-JUL-2000 15:30
Collected By : RL99
Sample Type : Potable Water

Copies To : SCHD
Report Issued : 07/12/2000

| Lab Number | Collected | Location | Units<br>Method<br>Limits | T.COLI. BACT.<br>NONE<br>SM#9223<br>NEGATIVE | E.COLI.<br>NONE<br>SM#9223<br>ABSENT |
|---|---|---|---|---|---|
| 20000706-183<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>12:30 | WELL-10 GAC FILTER-654 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-184<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>12:35 | WELL-11 GAC FILTER-655 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |
| 20000706-185<br>ROUTINE<br>RAW WELL | 06-JUL-2000<br>11:25 | WELL-12 GAC FILTER-657 | | NEGATIVE<br>07-JUL-2000 13:15 | ABSENT<br>07-JUL-2000 13:15 |

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



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ATTACHMENT II

**Brookhaven National Laboratory**
**Potable Water Supply**

**July 2000 Biweekly Water Quality Monitoring Data for the BNL Potable Water Wells**

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

| Sample Location | Sample Date | pH (SU) | Temperature (Degrees F) | Conductivity (μmhos) | Alkalinity (mg/L) | Calcium (mg/L) |
|---|---|---|---|---|---|---|
| WTP | 7/6/00 | 7.6 | 55 | 170 | NR | NR |
| WTP | 7/11/00 | 7.4 | 55 | 135 | NR | NR |
| WTP | 7/13/00 | 7.4 | 56 | 134 | NR | NR |
| WTP | 7/18/00 | 7.6 | 57 | 131 | NR | NR |
| WTP | 7/20/00 | 7.7 | 56 | 136 | NR | NR |
| WTP | 7/25/00 | 7.9 | 56 | 200 | NR | NR |
| WTP | 7/27/00 | 7.6 | 57 | 130 | NR | NR |
| Well 11 | 7/6/00 | 7.6 | 56 | 166 | NR | NR |
| Well 11 | 7/11/00 | 8.0 | 56 | 256 | NR | NR |
| Well 11 | 7/13/00 | 8.0 | 56 | 177 | NR | NR |
| Well 11 | 7/18/00 | 8.0 | 56 | 215 | NR | NR |
| Well 11 | 7/20/00 | 8.2 | 55 | 220 | NR | NR |
| Well 11 | 7/25/00 | 8.1 | 56 | 235 | NR | NR |
| Well 11 | 7/27/00 | 8.2 | 56 | 206 | NR | NR |
| Well 12 | 7/6/00 | 8.0 | 56 | 191 | 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.