



# WATER-RIGHT DOCKET

## Hopewell Furnace National Historic Site

Docket No: 4

SPRING HOUSE, BLDG. #71

Supporting Hydro Data

00-00-0000: water well completion report

*File*

### WATER WELL COMPLETION REF

Page 77

WRITE CLEARLY & PRESS HARD 1st COPY

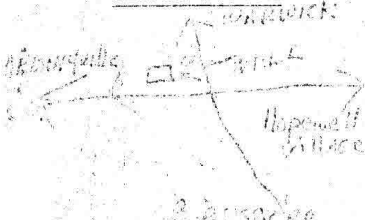
TO DRILLER, 2nd TO WELL OWNER, 3rd TO PA. GEOLOGICAL SURVEY, HARRISBURG

Well Owner Hopewell Furnace  
St. or Rd. \_\_\_\_\_  
City \_\_\_\_\_  
Township Union  
County Chesapeake  
Driller James P. Bucci  
License No. 6118  
Well Use: Domestic ☒ Public \_\_\_\_\_ Indust. \_\_\_\_\_  
Other Specify \_\_\_\_\_  
Date Well Completed March 1967  
Location Description 2nd Spring House

Well Depth 142 ft. Depth to Bedrock \_\_\_\_\_ ft.  
Type Water-Bearing Rock: Gravel \_\_\_\_\_ Sand \_\_\_\_\_ Shale \_\_\_\_\_  
Sandstone \_\_\_\_\_ Limestone \_\_\_\_\_ Other Specify \_\_\_\_\_  
Depth to Water Bearing Zones:  
First \_\_\_\_\_ ft. Second \_\_\_\_\_ ft. Third \_\_\_\_\_ ft.  
Depth to Water Before Pump Test \_\_\_\_\_ ft.  
Pump Test: Type of pump \_\_\_\_\_  
Length of test \_\_\_\_\_ Days \_\_\_\_\_ Hrs. Date \_\_\_\_\_  
Yield \_\_\_\_\_ G.P.M. How measured \_\_\_\_\_  
When measured \_\_\_\_\_  
Depth to water near end of test \_\_\_\_\_ ft.  
Was water level constant near end of test \_\_\_\_\_ Drawdown \_\_\_\_\_ ft.  
Depth to water after overnight rest \_\_\_\_\_ ft.  
Quality Chemical Analysis: Yes \_\_\_\_\_ No \_\_\_\_\_  
Biological Analysis: Yes \_\_\_\_\_ No \_\_\_\_\_  
Condition of Water \_\_\_\_\_ Temp \_\_\_\_\_ °F.  
Other Comments \_\_\_\_\_

| LOG OF FORMATIONS |                |
|-------------------|----------------|
| Rock Type         | Foot From - To |
| SAND              | 0-10           |
| CLAY              | 10-15          |
| "                 | 15-20          |
| "                 | 20-25          |
| "                 | 25-30          |
| "                 | 30-35          |
| "                 | 35-40          |
| "                 | 40-45          |
| "                 | 45-50          |
| "                 | 50-55          |
| "                 | 55-60          |
| "                 | 60-65          |
| "                 | 65-70          |
| "                 | 70-75          |
| "                 | 75-80          |
| "                 | 80-85          |
| "                 | 85-90          |
| "                 | 90-95          |
| "                 | 95-100         |
| "                 | 100-105        |
| "                 | 105-110        |
| "                 | 110-115        |
| "                 | 115-120        |
| "                 | 120-125        |
| "                 | 125-130        |
| "                 | 130-135        |
| "                 | 135-140        |
| "                 | 140-142        |

#### SKETCH MAP OF LOCATION



WW-1-65 BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY, DEPT. OF INTERNAL AFFAIRS

DO NOT FOLD

### WATER WELL COMPLETION REPORT

WRITE CLEARLY & PRESS HARD 1st COPY

TO DRILLER, 2nd TO WELL OWNER, 3rd TO PA. GEOLOGICAL SURVEY, HARRISBURG

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Other Specify \_\_\_\_\_  
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Length of test \_\_\_\_\_ Days \_\_\_\_\_ Hrs. Date \_\_\_\_\_  
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Other Comments \_\_\_\_\_

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| "                 | 40-45          |
| "                 | 45-50          |
| "                 | 50-55          |
| "                 | 55-60          |
| "                 | 60-65          |
| "                 | 65-70          |
| "                 | 70-75          |
| "                 | 75-80          |
| "                 | 80-85          |
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| "                 | 140-142        |

#### SKETCH MAP OF LOCATION

WW-1-65 BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY, DEPT. OF INTERNAL AFFAIRS

DO NOT FOLD

Other Supporting Information

## WATER SYSTEM DATA

Lloyd House #71

- AREA Hopewell Village N.H.S. DATE 6-15-67 COLLECTED BY Moore
1. Name of System: Building #71
  2. Location: State Pennsylvania County Berks General Area Hopewell  
Reference to permanent landmark \_\_\_\_\_
  3. Source of Supply: Spring Capacity 17.7 gpm, May 19, 1967  
(Well, Spring, Stream, Impoundment, etc.)
  4. Type of System: Pumped (Pneumatic)  
(Pumped, Gravity, etc.)
  5. Treatment: Chlorinator  
(Filtration, Chlorination, Aeration, etc.)
  6. Distribution Mains: Size 1 1/2 Length \_\_\_\_\_; Size \_\_\_\_\_ Length \_\_\_\_\_  
Size \_\_\_\_\_ Length \_\_\_\_\_; Size \_\_\_\_\_ Length \_\_\_\_\_  
Size \_\_\_\_\_ Length \_\_\_\_\_; Size \_\_\_\_\_ Length \_\_\_\_\_
  7. Pump Unit: Make Myers; Type \_\_\_\_\_; Model No. \_\_\_\_\_  
Serial No: --; Outlet 1 1/2 in.; Inlet -- in.  
(Size) (Size)
  8. Power Source: Electric Motor: Make Century; HP 1/2  
(Elec., Gas, Generator)  
Serial No. X9; Voltage 115; Amps 4.2  
RPM 1750; Type --; Phase one  
Cycles 60; Others \_\_\_\_\_; Stages \_\_\_\_\_
  9. Control: Automatic Pressure\*; Manual \_\_\_\_\_  
(Float, Electrode, Pressure, Time)  
Other \_\_\_\_\_  
(Explain)

\* Square D, Class 9013, Type FSG6U closes @ 40 opens @ 20

[illegible]

## GILBERT ASSOCIATES, INC.

ENGINEERS AND CONSULTANTS

## LABORATORY DIVISION

LABORATORY  
2249 FAIRVIEW STREET  
READING, PENNSYLVANIA 19606

OFFICE  
525 LANCASTER AVE., BOX 1498  
READING, PENNSYLVANIA 19603

## CERTIFICATE OF ANALYSIS

SAMPLE OF: RAW WATER

SAMPLED: May 26, 1967

LABORATORY NO: 230531

RECEIVED: May 26, 1967

YOUR NO:

REPORTED: June 9, 1967

SUBMITTED BY: Hopewell Village  
R. D. 1  
Elverson, Pa.

MARKED: SPRING HOUSE #71

|                        |                                   | CaCO <sub>3</sub><br>Equiv. | Ions |
|------------------------|-----------------------------------|-----------------------------|------|
| Calcium                | ppm Ca                            | 11.0                        | 4.4  |
| Magnesium              | ppm Mg                            | 7.0                         | 1.7  |
| Sodium                 | ppm Na                            | 20.4                        | 9.4  |
| TOTAL CATIONS          | ppm                               | 38.4                        |      |
| Bicarbonates           | ppm HCO <sub>3</sub>              | 25.0                        | 30.5 |
| Sulfates               | ppm SO <sub>4</sub>               | 3.4                         | 3.3  |
| Chlorides              | ppm Cl                            | 8.5                         | 6.0  |
| Nitrates               | ppm NO <sub>3</sub>               | 1.5                         | 1.8  |
| TOTAL ANIONS           | ppm                               | 38.4                        |      |
| Hydrogen Ion Conc.     | pH                                |                             | 6.3  |
| Conductivity           | Mmho                              |                             | 69.0 |
| M. O. Alkalinity       | ppm CaCO <sub>3</sub>             |                             | 25   |
| Total Hardness         | ppm CaCO <sub>3</sub>             |                             | 18   |
| Free Carbon Dioxide    | ppm CO <sub>2</sub>               |                             | 19.0 |
| Silica - Soluble       | ppm SiO <sub>2</sub>              |                             | 21.9 |
| Iron - Soluble         | ppm Fe                            |                             | 0.03 |
| Iron - Total           | ppm Fe                            |                             | 0.05 |
| Manganese              | ppm Mn                            |                             | 0.05 |
| Copper                 | ppm Cu                            |                             | 0.02 |
| Iron & Aluminum Oxides | ppm R <sub>2</sub> O <sub>3</sub> |                             | 0.4  |
| Color                  | ppm                               |                             | 0    |
| Turbidity              | ppm                               |                             | tr.  |
| Suspended Solids       | ppm                               |                             | 0.6  |
| Soluble Solids         | ppm                               |                             | 64   |
| Total Solids           | ppm                               |                             | 65   |

Respectfully submitted,

EMS  
cc: John C. Riddle, Supt. (3)

*W. J. Delp*  
W. J. Delp  
Chief Chemist



IN REPLY REFER TO:  
D5039  
L54

UNITED STATES  
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE  
HOPEWELL VILLAGE NATIONAL HISTORIC SITE  
R.D. #1  
ELVERSON, PENNSYLVANIA 19520

June 22, 1967

*John*  
*Water Right*  
*Well*  
*Log*

Memorandum

To: Chief, Office of Land and Water Rights

From: Superintendent, Hopewell Village

Subject: Water Samples Collected From Sources For Chemical Analysis

We are submitting three (3) copies of each test result of chemical analysis performed by Gilbert Associates, Inc., Reading, Pennsylvania covering water supply systems at Hopewell Village under direction from Garland Moore, Engineer, WASO, and project supervisor on the job during test well was being constructed at Quarters #71 at this site.

*John C. W. Riddle*  
John C. W. Riddle  
Superintendent

cc:  
Regional Director, Northeast w/c enclosure  
D&C, PSC w/c enclosure  
DCE, WSC - Mr. Montgomery thru Mr. Peetz w/c enclosure

Enclosures: 7

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R. D. 1  
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MARKED: SPRING HOUSE #71

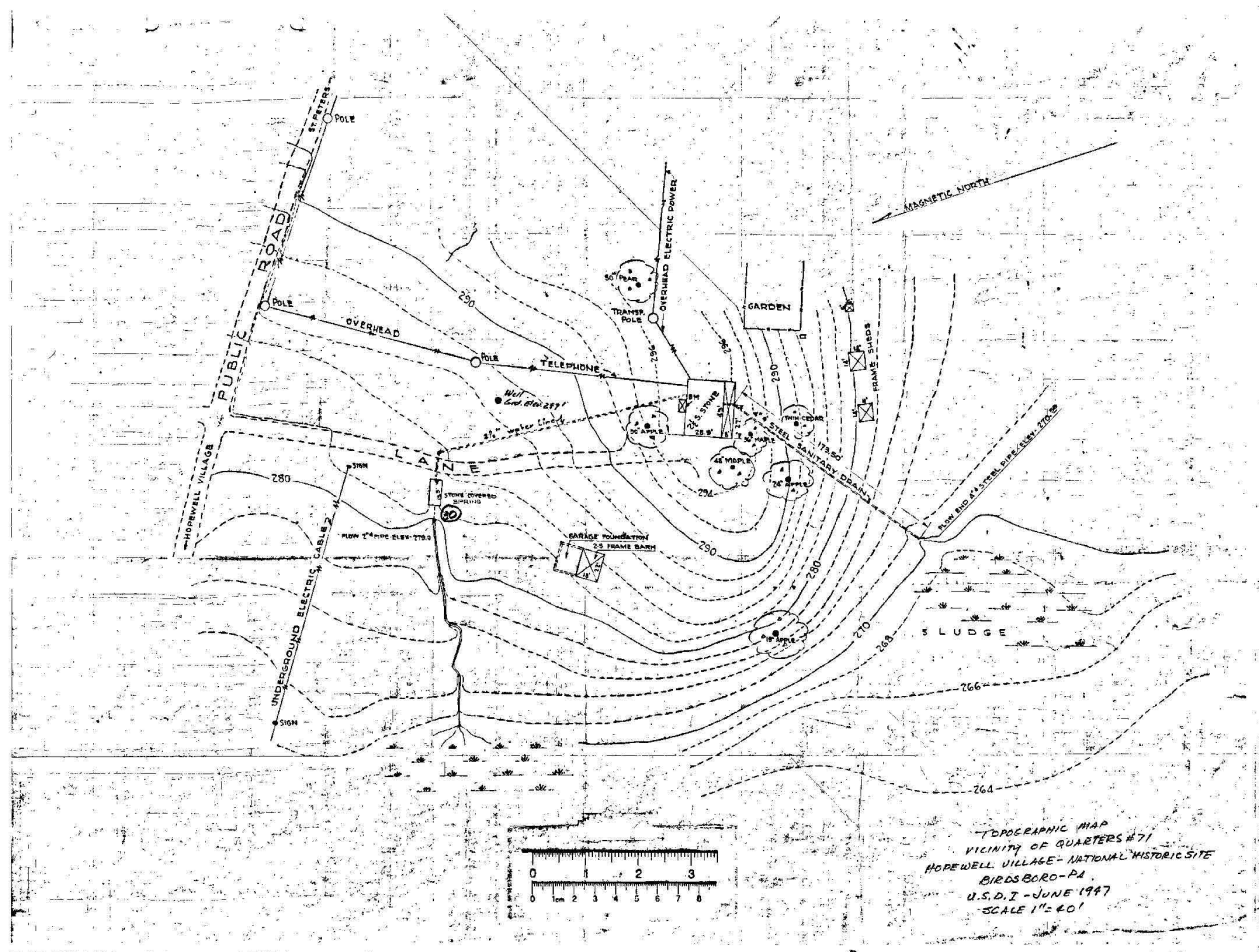
|                        |                                   | <u>CaCO<sub>3</sub></u><br><u>Eqv.</u> | <u>Ions</u> |
|------------------------|-----------------------------------|----------------------------------------|-------------|
| Calcium                | ppm Ca                            | 11.0                                   | 4.4         |
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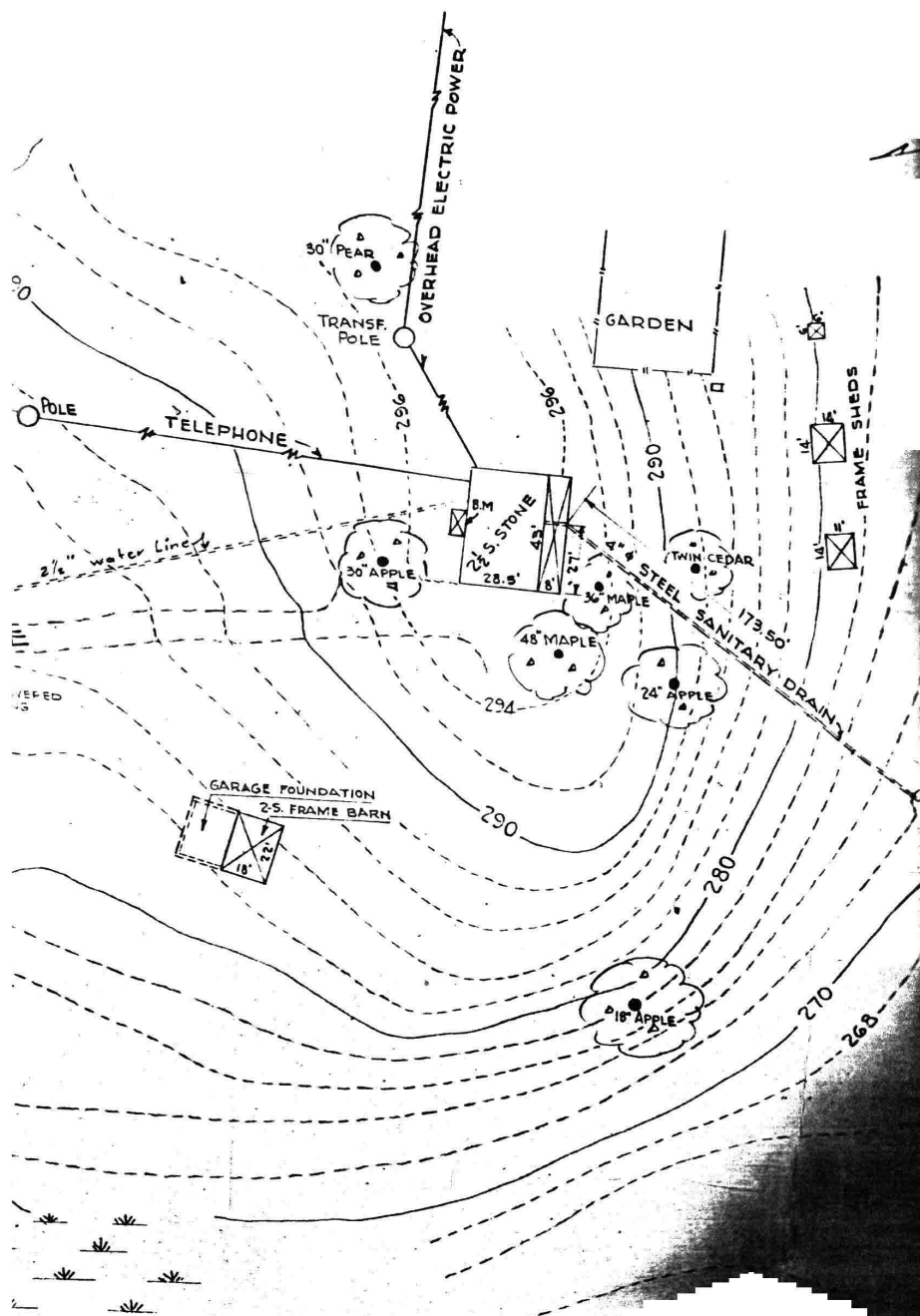
Respectfully submitted,

*W. J. Delp*  
W. J. Delp

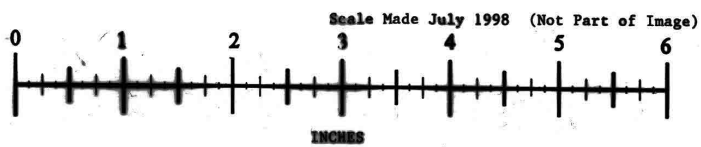
EMS

Maps and Miscellaneous Information





Scale 1" = 20'



|                               |           |    |           |
|-------------------------------|-----------|----|-----------|
| Number of Documents in Docket | 9         |    |           |
| Documents Dated from          | 6/15/1947 | to | 6/22/1967 |
| Docket Compiled:              | 4/11/2011 |    |           |