



# WATER-RIGHT DOCKET

## Colonial National Historical Park

Docket No: 1

### WATER SUPPLY WELLS

#### Administrative Agreements

04-16-1964: agreement between the united states of america; april 16, 1964

SJB:mfg 1-3 4-16-64

THIS AGREEMENT, made and entered into this 16th. day of April, 1964, between the UNITED STATES OF AMERICA, acting in this behalf by the Superintendent, Colonial National Historical Park, hereinafter referred to as "Superintendent", party of the first part; and the CITY OF WILLIAMSBURG, Virginia, a municipal corporation, hereinafter referred to as the "City", party of the second part.

Whereas, it has been determined by the United States, acting through the Superintendent of the National Park Service, that there is need for an adequate supply of water for a picnic or park area to be constructed just off the Colonial Parkway, south of the corporate limits of the City, and that it is in the best interest of the United States to provide such water service through the cooperation of the City of Williamsburg, upon the terms hereinafter set forth in this agreement:

NOW, THEREFORE, WITNESSETH:

1) That for the considerations hereinafter stated, the City hereby agrees with the Superintendent, that it will install or cause to be installed approximately 3,002 linear feet of water main, not less than four inches in diameter, from a point on the Colonial Parkway boundary designated Station 8 + 30, thence under and along the westerly side of said Parkway to a point designated Station 38 + 32<sup>8</sup> near the proposed picnic or park area, all as shown on plans and specifications entitled "Water Supply Main From City of Williamsburg to Kingspoint, Plan and Profile," dated February, 1964, copies of which are on file in the office of the City Manager. The City further agrees to complete the installation in 120 days following the execution of this contract, unless weather conditions prohibit the continuance of the work, and then the City agrees to proceed with the work as rapidly as weather conditions will permit.

2) It shall be the responsibility of the City to cause the water main to be installed in a workman like manner, and to keep and maintain the same in good state of repair and capable of delivering a sufficient quantity of potable water to meet the normal and emergency needs of the Colonial National Historical Park.

3) The City shall cause to be delivered through the said water main and to the Government's connection a good and sufficient supply of potable water for use at the said area, and shall install a meter at the connection and keep same in good repair.

4) The Superintendent shall construct at his own expense such service lines as may be necessary from the said meter to such installation within the park area as may be desired.

5) The United States, through the Superintendent, Colonial National Historical Park, agrees that it will execute and deliver to the City of Williamsburg, in form suitable for recordation, a Use Permit for the construction of a water main four inches (4) or more in diameter, with the right of ingress and egress over and along the said Parkway for the purpose of constructing, operating and maintaining the said water line and for making any additional connections thereto, from the said Station 8 + 30 to the property line of Kingspoint Corporation.

6) The Superintendent shall pay to the City of Williamsburg, the sum of Ten Thousand (\$10,000.00) Dollars for furnishing the water service connection. The payment shall be made upon completion of the work specified in this agreement, and after approval and acceptance of it by the United States together with a release of claims against the United States in the form prescribed by the United States, but such acceptance and payment shall not be withheld more than 30 days after such completion, inspection and release.

7) It is understood and agreed between the parties hereto that the City shall have the right to contract with a third party for the construction of the said water line; and shall have the further right to increase the size of the line as it may deem desirable.

8) The City shall have the right to make additional connections to said line.

9) The City agrees that for each connection made to the line between Station 8 + 30 and Station 38 + 32<sup>B</sup>, the City will reimburse the National Park Service the sum of \$50.00, being one-half of the usual refund

for such connections, and under no circumstances shall such refunds exceed the contribution made by the United States, through the Colonial National Historical Park, to the cost of constructing the said water main. This provision shall terminate at the end of 6 years from the date hereof, or when the contribution has been recovered, whichever shall first occur, no further reimbursement being paid thereafter.

10) The water service contemplated by this contract shall be supplied by the City at rates fixed by the Council, which rates may be changed from time to time as determined by the Council. The rate at which water will be supplied under this contract shall be the prevailing rate fixed by the Council for water service to users outside the corporate limits.

11) The standard, published rules and regulations of the City of Williamsburg covering water service shall be applicable.

12) Title to the said waterline shall vest in the City immediately upon the completion and commencement of water service under this agreement, but subject, nevertheless to the interests of the United States in the water line as set forth herein.

13) The quality and pressure of water delivered under this contract shall be that in the line from which the water is supplied at the point and time of delivery.

14) The parties hereto agree that there shall be no cross connections between the City's system and any well or other source of water supply whatever.

15) That no water shall be used for cooling, air-conditioning or refrigerating units without the consent of the City Manager first obtained.

16) No water furnished under this agreement shall be resold for any purpose whatsoever.

17) It is understood and agreed between the parties that the policy of the City regarding the furnishing of water outside the corporate limits, is set forth in a Resolution of the City Council adopted the 14th. day of October, 1954, and that the policy therein stated, as amended, shall form the basis for this contract, and is hereby made a part hereof.

18) (a) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited, to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(b) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(c) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The contractor will comply with all provisions of Executive Order No. 10925 of March 6, 1961, as amended, and of the rules, regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.

(e) The contractor will furnish all information and reports required by Executive Order No. 10925 of March 6, 1961, as amended, and by the rules, regulations, and orders of the said Committee, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Committee for purposes of investigation to ascertain compliance

with such rules, regulations, and orders.

(f) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 10925 of March 6, 1961, as amended, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

(g) The contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to section 303 of Executive Order No. 10925 of March 6, 1961, as amended, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

19) No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

20) This agreement neither relates to nor affects any taxes or assessments levied by the City and it is understood that no taxes or assessments of any nature whatsoever can have application to the property of the United States.

IN WITNESS WHEREOF the United States has caused this contract to be executed in its behalf, by the <sup>Acting</sup> Superintendent of Colonial National Historical Park, and the City of Williamsburg has caused its corporate name to be hereunto signed by its Mayor, under its seal, attested by its Clerk, all done the day, month and year first above written.

CITY OF WILLIAMSBURG

By: H.M. Stryker  
Mayor

Attest:

Fannie C. Nightengale, Clerk

UNITED STATES OF AMERICA

By: George F. Emery  
Acting Superintendent, Colonial  
National Historical Park

Commonwealth of Virginia

City of Williamsburg, ss:

I, MARY FRANCES GOIN, a Notary Public for the <sup>County</sup> ~~City~~ of ~~Williamsburg~~ <sup>James City</sup> in the Commonwealth of Virginia, do certify that H. M. Stryker, Mayor, and Fannie C. Nightengale, Clerk, of the City of Williamsburg, whose names as such are signed to the foregoing writing bearing date the 16th. day of April, 1964, have this day acknowledged their respective signatures before me in my jurisdiction aforesaid.

My commission expires June 5, 1967.

Given under my hand this 8th day of <sup>May</sup> ~~April~~, 1964.

Mary Frances Goin  
Notary Public

Commonwealth of Virginia

James City  
County of ~~Xaxx~~, ss:

I, MARY FRANCES GOIN, a Notary Public for the <sup>George F. Emery,</sup> ~~County of Xaxx~~ <sup>James City</sup> in the Commonwealth of Virginia, do certify that ~~xxxxxxx~~

Acting  
~~Abbott~~ Superintendent, Colonial National Historical Park, whose name as such  
is signed to the foregoing writing bearing date the 16th. day of April, 1964,  
has this day acknowledged his respective signature before me in my juris-  
diction aforesaid.

My commission expires June 5, 1967.

Given under my hand this 8th day of <sup>May</sup>~~April~~, 1964.

Mary Frances Boie  
Notary Public

Colonial N.H.P.

WR 6/10  
file  
8/4/61

The Director  
National Park Service  
Department of the Interior  
Washington 25, D. C.

Dear Sir:

Contract 14-10-0100-1282  
V.

We, A. J. Renforth, Jr. and wife, Pauline M. Renforth and Lula W.

Renforth, widow, offer to convey to the United States of America and its  
assigns, in exchange for certain Colonial National Historical Park lands  
described below, the following described lands:

RENFORTH PROPERTY

Page 83

All of that certain piece or lot of land situate, lying  
and being in Nelson Magisterial District, York County,  
Virginia, at the southeast end of Main Street of the  
Town of York, Virginia, at the junction of the said Main  
Street with the Yorktown-Hampton main road, immediately  
adjoining the United States Monument lots of land and  
is contained within the following metes and bounds:

Beginning at a point in the southwest line of the said  
Monument lots at the intersection of the northeast line  
of said Main Street with the southeast line of the said  
Yorktown-Hampton main road; thence, along the southeast  
line of the said main road S. 40° 15' W., 150 feet to a  
point on said line; thence, S. 35° 45' E. (parallel to  
the said Monument lots), 364.5 feet to a point in the  
northwest line of the property formerly owned by the  
Jamestown Portland Cement Company; thence, along the  
northwest line of the said Company N. 40° 15' E., 180  
feet to a point opposite the southwest corner of the  
said Monument lots; thence, along the southwest line of  
the said Jamestown Portland Cement Company and the said  
Monument lots N. 35° 45' W. 364.5 feet to the point of  
beginning. And is bounded on the northwest by the said  
Yorktown-Hampton main road; on the northeast by the said  
Monument lots of land; on the southeast by the land that  
formerly belonged to the Jamestown Portland Cement Company  
and on the southwest by the remainder of the said property.  
The lot or piece of land contains 1 1/2 acres and is the same  
land in which an undivided one half interest was conveyed  
to A. J. Renforth, Jr. by A. J. Renforth, Sr. and wife,  
Lula W. Renforth by deed dated July 23, 1942 and recorded  
in the public land records of York County in Deed Book  
60 at page 523.

Subject to the condition that existing buildings on the aforesaid  
property shall never be used for any commercial purpose whatsoever, including  
but not limited to rental of rooms to any person, firm, or corporation,  
including employees of the United States.

We agree to accept in exchange for such lands, if the offer is  
approved and title to the above lands is accepted, the following described  
Colonial National Historical Park lands:

✓ L 7/3/61

GOVERNMENT-OWNED LANDS (COOK TERRACE ANNEX)

All that certain lot, piece, or parcel of land containing 26.6 acres, more or less, with all improvements thereon, lying and being in York County, Virginia, as shown and set forth on a plat entitled, "Cook Terrace Annex Tract, Dwg. No. COL-MHP 2391," Surveyed by T. L. Robinette, Park Engr., dated July 13, 1961, a copy of which is attached hereto and made a part hereof, and on which plat said property is more particularly described as follows: Beginning at a concrete monument on the northerly right of way line of Virginia State Highway No. 238, which point is 840 feet in a course of N. 75° 38' E. from the U. S. Naval Weapons Station line, thence N. 11° 25' W. a distance of 547.0 feet to a concrete monument, thence N. 50° 13' E. a distance of 1661 feet, more or less, to a concrete monument, thence S. 9° 08' W. a distance of 1422.8 feet, more or less, to a point on the northerly right of way line of said Virginia State Highway No. 238, thence along said right of way line N. 80° 51' W. a distance of 372.6 feet to a point, thence continuing along said right of way line N. 84° 06' W. a distance of 120 feet to a point, thence continuing along said right of way line S. 85° 44' W. a distance of 120.0 feet to a point, thence continuing along said right of way line S. 84° 52' W. a distance of 400 feet to a point, thence continuing along said right of way line S. 80° 13' W. a distance of 88.0 feet to the point of beginning, and being the same property which was acquired by the National Park Service by transfer from the Department of the Navy on September 30, 1932.

Subject to an easement across the above described property to maintain an existing water line along the north side of Highway 238 for the exclusive use of the United States or its assigns.

It is mutually agreed between the parties hereto that the even

exchange of properties will be subject to the following terms and conditions:

1. That each party hereto shall, at its own cost and expense, execute, acknowledge, and deliver each to the other proper deeds, which, in this case, shall consist of a general warranty deed from the Hanforths and a quitclaim from the United States.

2. That, when requested by the proper representative of the United States, at any time after this agreement becomes a contract the Hanforths will promptly, at their expense, furnish an abstract of title which shall later be extended to include any instrument subsequently required to be recorded by the United States in connection with the title to said lands showing a good and sufficient title to its lands free from objectionable encumbrances and otherwise comply in all respects with the requirements of the Department of the Interior relative to exchanges under the act of March 20, 1906 (70 Stat. 61.)

✓ L JH  
7/31/61

3. That within the limits of its appropriations, the National Park Service, or its assigns shall be responsible only for maintenance of water and sewer lines up to the west property line of the Cook Terrace Annex property described above and then only for so long as these utilities are available from the Naval Weapons Station and the City of Newport News, respectively. It is a primary and valuable consideration to the offerors in making this offer and agreement that sewage and water facilities will be available for their use, so long as such facilities are available to the National Park Service from the Navy, it being further understood that the Renfords or their assigns shall reimburse the Government (National Park Service) for water and sewerage service as provided by law.

4. That any loss or damage occurring prior to acceptance of title to the aforesaid properties by the parties hereto because of fire shall be borne by each party and in the event any such loss or damage occurs either party may elect to refuse to exchange unless an equitable adjustment is made.

5. That the right of possession to the Government land is granted to the Renfords or their assigns for the purpose of administration and protection from fire and trespass from the date of approval of this offer; provided, however, that such right of possession shall cease and terminate in the event the Renfords are unable to convey a good and valid title to the United States, and provided further that the Renfords or their assigns will hold the United States and/or its employees free and harmless from any and all claims for injuries or damages to persons or property arising either directly or indirectly from their use of the premises and/or exercise of the privileges granted.

6. That in the event this offer is accepted by the United States and title to the real property is conveyed, the Renfords shall have the right to continue full, free, peaceful and unmolested occupancy and use of the hotel (Monument Lodge) for a period of six months rent free after the date of closing, but in the event it is necessary for the occupancy as living quarters to extend beyond the six months' period it is understood and agreed that the Renfords

shall have the right of continued occupancy at the rate of \$50.00 per month for an additional three months. The Renforths during the term of their occupancy after the six months' period shall pay the United States for any damage resulting from this use which would not reasonably be inherent in the use which the Renforths are authorized to make of the property.

7. That the Government will permit Messrs. Muse Howell/Dr. Gunter Peipenhagen to continue to occupy their present quarters for a period of six months after deeds are exchanged, at the rate of \$55.00 and \$85.00 per month, respectively, payable to the Government in advance, and the Renforths or their assigns will permit two Government employees now occupying Cook Terrace Annex Apartments to continue that use for a period of six months after deeds are exchanged at the rate of \$22.00 per month for each apartment used. This paragraph constitutes an exception to the condition, covenant, and restriction set forth in the description of the Renforth property.

8. That the premises above described are exchanged on the basis of "as is" at the time this contract is approved less and except all articles of personal property belonging to either party or their assigns.

9. That the Government agrees to turn over to the Renforths or their assigns all keys in its possession so numbered to correspond with the various locks in the Cook Terrace Annex property, insofar as possible.

10. That the Renforths and their tenants reserve the following property and shall have the right to remove same during the occupancy herein set forth:

- (1) The large front entrance door at Monument Lodge.
- (2) The two American humped bushes in front of the Lodge.
- (3) The shrubbery and plants owned by Dr. Peipenhagen around the cottage adjacent to Monument Lodge.

11. That all fixtures and articles of personal property except electric ranges and refrigerators attached to or appurtenant to or used in the operation of the Cook Terrace Annex property, including, but not limited to,

plumbing, heating, lighting and cooking fixtures, bathroom and kitchen cabinets, window shades, window screens, window boxes, screen doors and shrubbery and plants, are included in this exchange agreement.

12. That when this offer is accepted by the National Park Service this instrument shall constitute a contract of bargain and sale between the parties hereto.

13. No member of or Delegate to Congress, or Resident Commissioner, after his election or appointment, and either before or after he has qualified, and during his continuance in office, shall be admitted to any share or part of this contract or agreement, or to any benefit to arise therefrom. Nothing in this paragraph, however, shall invalidate this contract if made with a corporation for its general benefit.

Witnesses as to Renforths  
signatures

A. T. JENNINGS

Sincerely yours,

A. J. Renforth, Jr.  
A. J. Renforth, Jr.

CLIFFORD J. HARRIMAN

Pauline M. Renforth  
Pauline M. Renforth

Lula W. Renforth  
Lula W. Renforth

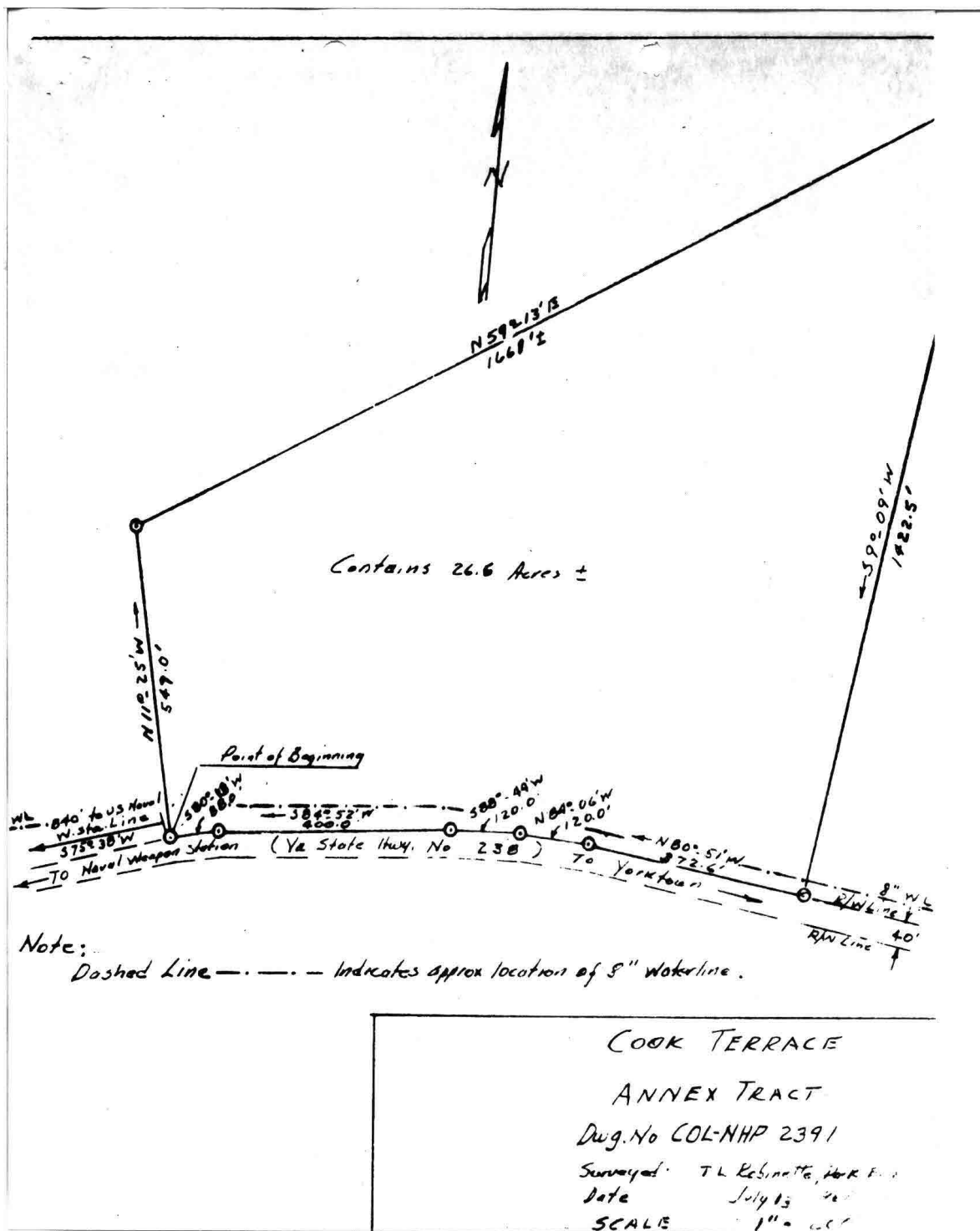
APPROVED: AUG 4, 1961  
(date)

Witnesses as to signature of  
Assistant Director

H. R. GARRETT  
AVILLE P. TINDALL

BY JACKSON E. PRICE

Jackson E. Price  
Assistant Director, National Park Service  
on Behalf of the United States of America



Supporting Hydro Data



UNITED STATES  
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

General Hydrology Branch  
P. O. Box 5083  
Raleigh, North Carolina 27607

193-3-17-67  
W.R. Cogg.

Colonial

March 14, 1967

Mr. E. W. Reed  
Chief, Branch of Water Resources  
National Park Service  
U. S. Department of the Interior  
Washington, D. C. 20240

Ref: L54-SLW

Dear Ed:

Attached are a lithic log and geophysical logs for the  
test well near Jamestown, Virginia.

Once again, thanks for your help.

Regards,

Sincerely,

P. M. Brown  
Research Geologist

Colonial Parkway at Jamestown Memorial

| Depth (feet) | Lithology                                                                                                                                                                                                                                                     |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0-10         | Sand, clay, and gravel, light rust: 50 percent<br>very fine- to fine-grained angular to subangular<br>sand. 30 percent light rust clay matrix.<br>20 percent fine- to coarse-grained gravel.<br>Coarse-grained sand, mica, black heavy minerals<br>prominent. |
| 10-20        | Same with 20 percent increase in gravel, corresponding<br>decrease in sand.                                                                                                                                                                                   |
| 20-30        | Gravel, light-tan, fine- to coarse-grained.<br>Coarse- to very coarse-grained sand prominent.<br>Trace light-tan clay.                                                                                                                                        |
| 30-40        | Sand, dark-gray, very fine-grained, angular, well-<br>sorted. Hematite, muscovite, dark-gray clay<br>prominent. Trace echinoid spines, fine-grained<br>gravel, glauconite.                                                                                    |
| 40-50        | Sand and gravel, dark-gray with green tint:<br>70 percent very fine- to fine-grained angular<br>to subrounded sand. 20 percent fine- to medium-<br>grained gravel. 10 percent shell fragments.<br>Dark greenish-gray clay prominent.                          |
| 50-60        | Same with decrease in shell to trace, 10 percent<br>decrease in sand, corresponding increase in<br>gravel (mostly pea-sized, limonite-stained).                                                                                                               |

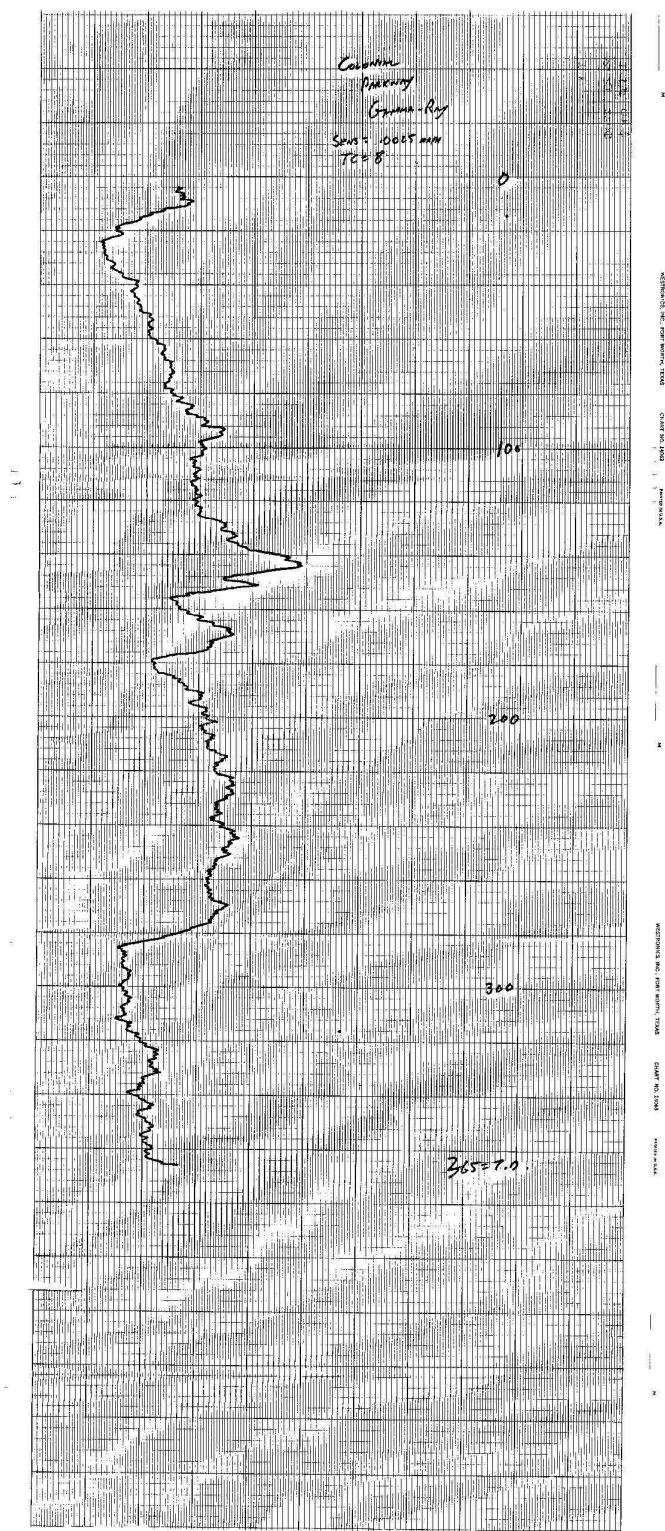
| Depth (feet) | Lithology                                                                                                                                                                                                                                                |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 60-70        | Silt and sand, dark-gray: 65 percent dark-gray coarse-grained silt. 35 percent coarse- to very-coarse grained subangular to subrounded water-polished hematite-stained sand. Shell fragments prominent. Trace pyrite.                                    |
| 70-80        | Same.                                                                                                                                                                                                                                                    |
| 80-90        | Clay and sand, dark greenish-gray: 80 percent dark greenish-gray clay. 20 percent coarse- to very-coarse grained subangular- to subrounded hematite-stained sand. Very fine-grained sand, marcasite, gypsum prominent. Trace phosphate, shell fragments. |
| 90-100       | Same with sand medium- to coarse-grained, water-polished in part. Not usually stained.                                                                                                                                                                   |
| 100-110      | Same, shell fragments prominent.                                                                                                                                                                                                                         |
| 110-120      | Same.                                                                                                                                                                                                                                                    |
| 120-130      | Same, decrease in shell, gypsum, and marcasite to trace. Add trace pyrite.                                                                                                                                                                               |
| 130-140      | Clay and sand, dark-gray: 60 percent dark-gray clay matrix. 40 percent medium- to coarse-grained subangular to subrounded water-polished sand. Reworked phosphate, coarse-grained sand prominent. Trace pyrite, shell fragments.                         |
| 140-150      | No sample.                                                                                                                                                                                                                                               |

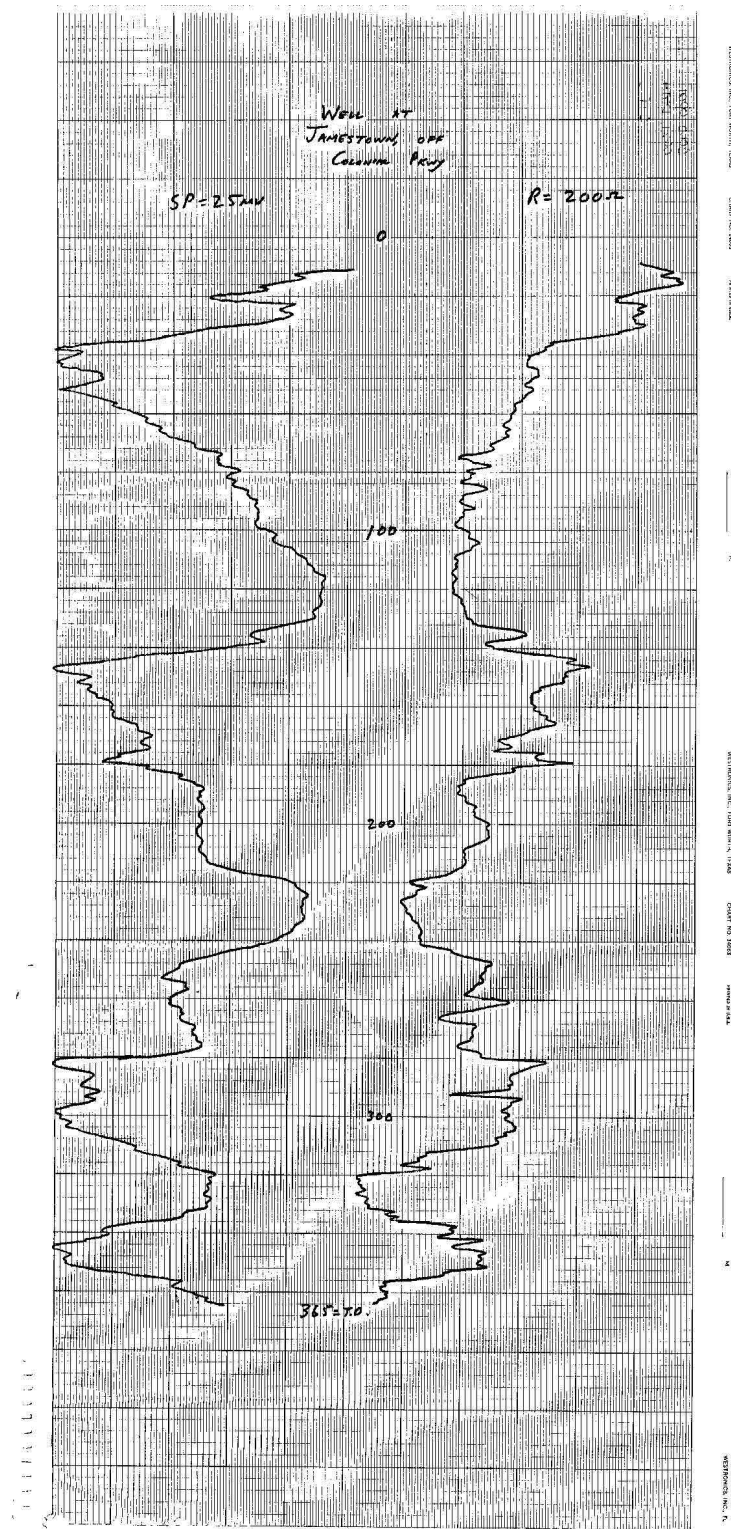
| Depth (feet) | Lithology                                                                                                                                                                                                                                                                                                                      |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 150-160      | Gravel, clay, and sand, medium-gray: 40 percent<br>fine- to coarse-grained gravel. 30 percent<br>fine- to medium-grained subangular to subrounded<br>water-polished sand. 30 percent medium-gray<br>clay matrix. Reworked phosphate, shell fragments<br>prominent.                                                             |
| 160-170      | Sand, shell, and clay, medium-gray: 55 percent<br>medium- to coarse-grained subangular to subrounded<br>water-polished sand. 25 percent medium-gray<br>clay matrix. 20 percent coarse shell fragments.<br>Trace dark-gray crystalline limestone particles.<br>Phosphate, fine-grained gravel prominent.                        |
| 170-180      | Same with decrease in shell to prominent,<br>corresponding increase in sand. No gravel.                                                                                                                                                                                                                                        |
| 180-181.5    | Sand and clay, very light-gray with green tinge:<br>65 percent fine- to coarse-grained subangular<br>to subrounded sand, water-polished in part.<br>20 percent very light-greenish-gray clay.<br>15 percent dark-green glauconite. Medium- to<br>coarse crystalline light-gray-white glauconitic<br>sandy limestone prominent. |

| Depth (feet) | Lithology                                                                                                                                                                                                                                                                  |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 181.5-188    | Glaucinitic sand, very dark greenish-gray (almost black): 65 percent dark-green to brown (oxidized-mostly) glauconite. 20 percent fine- to medium-grained angular to subangular sand, with greenish-brown stain common. 15 percent dark-gray clay binder. Trace muscovite. |
| 188-200      | Same with 15 percent increase in sand, corresponding decrease in glauconite. Coarse-grained sand prominent. Add trace pyrite.                                                                                                                                              |
| 200-210      | Glaucinitic sand, very dark-green: 70 percent dark-green to brown (oxidized) glauconite. 30 percent medium- to very coarse-grained subangular to subrounded water-polished sand. Trace dark-gray clay, shell fragments, fine-grained gravel.                               |
| 210-220      | Same.                                                                                                                                                                                                                                                                      |
| 220-230      | Same with not so much oxidized glauconite.                                                                                                                                                                                                                                 |
| 230-240      | Glaucinitic sand and clay, light greenish-gray: 55 percent light- to dark-green glauconite. 25 percent medium- to very coarse-grained angular to subangular sand. 20 percent light-gray clay matrix. Shell fragments prominent. Trace dark-brown dolomite.                 |

| Depth (feet) | Lithology                                                                                                                                                                                                                                                                                        |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 240-250      | Glaucanite and clay, very dark-green: 70 percent<br>medium- to coarse-grained dark-green glauconite.<br>20 percent dark-gray clay binder. 10 percent<br>medium- to coarse-grained subangular to<br>subrounded water-polished sand. Trace shell<br>fragments.                                     |
| 250-260      | Same. Add trace shell fragments.                                                                                                                                                                                                                                                                 |
| 260-270      | Same with glauconite (and sample) bright-green.<br>Add trace white glauconitic limestone particles.                                                                                                                                                                                              |
| 270-280      | Glaucanitic gravel and sand, bright-green:<br>40 percent bright to dark-green glauconite.<br>40 percent fine- to coarse-grained gravel.<br>20 percent fine- to medium-grained angular to<br>subangular sand. Light-gray clay binder<br>prominent. Trace oxidized glauconite, shell<br>fragments. |
| 280-290      | Gravel and sand, light greenish-gray: 70 percent<br>fine- to medium-grained well-rounded gravel.<br>30 percent medium- to very coarse-grained<br>subangular to subrounded sand. Trace light-<br>gray clay binder, glauconite (up-hole).                                                          |
| 290-300      | Same with 10 percent increase in sand, corresponding<br>decrease in gravel. Glaucanite prominent.<br>Add trace white feldspar.                                                                                                                                                                   |
| 300-310      | Same with gravel fine- to coarse-grained.                                                                                                                                                                                                                                                        |
| 310-320      | Same with sand mostly frosted.                                                                                                                                                                                                                                                                   |

| Depth (feet) | Lithology                                                                                                                                                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 320-330      | Pea gravel, light-gray with yellow tint: Gravel is well-sorted, subrounded to rounded, water-polished in part. Oxidized and fresh glauconite, light-gray clay with yellow tint prominent. Trace feldspar.                                                                                 |
| 330-340      | As above with fine- to medium-grained angular to subangular frosted sand comprising $\pm$ 25 percent of sample. Decrease in glauconite to trace.                                                                                                                                          |
| 340-350      | Same.                                                                                                                                                                                                                                                                                     |
| 350-360      | Sand, gravel and clay, light-gray with yellow tint: 50 percent very fine- to fine-grained angular frosted sand. 30 percent pea gravel, subangular to subrounded, water-polished. 20 percent light-yellow-gray clay matrix. Fresh to oxidized glauconite prominent. Trace shell fragments. |
| 360-370      | Pea gravel, subrounded to rounded, water-polished, well-sorted. Trace shell fragments, fresh glauconite, light yellow-gray clay binder.                                                                                                                                                   |

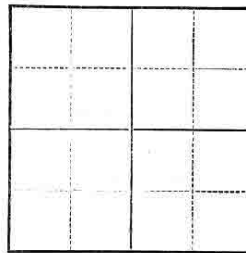




8-255  
(Jan. 1927)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WATER RESOURCES BRANCH

## RECORD OF WELL



Locate well on plat of section.

1. Location: State Virginia County James  
 Nearest P. O. Jamestown Direction from P. O. North  
 Distance from P. O. \_\_\_\_\_ miles; \_\_\_\_\_  $\frac{1}{4}$  sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_  
 If in city, give street and number Jamestown Visitor Center
2. Owner: National Park Service Address Colonial National Historical Park  
Yorktown, Virginia  
 Driller: R.L. Magette Address Smithfield, Va.
3. Situation: Is well on upland, in valley, or on hillside? hillside
4. Elevation of top of well: 6.9 ft. Above the level of MSL  
(Above or below) (Sea, depot, lake, or stream)
5. Type of well: Bored; kind of drilling rig used Rotary  
(Dug, driven, bored, or drilled) (Solid tool, jetting, rotary, etc.)
6. Depth of well: 340 ft.; year in which well was finished 1956  
 Does well enter rock? No; if so, at what depth? — ft.; kind of rock —
7. Diameter: At top 9-3/4 inches; at bottom 9-3/4 inches.
8. Principal water bed: Sand  
(Gravel, sand, clay, or rock. If rock, state kind)  
 Depth to principal water bed 331 ft.; thickness of bed 9 ft.  
 If other water supplies were found, give depth to each \_\_\_\_\_
9. Casings: Kind Steel-19.45/4 size 6"; length 331 ft.; between depths of 0 and 331 ft.  
 Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ and \_\_\_\_\_ ft.  
 Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ and \_\_\_\_\_ ft.
- Packers (if any): Depth at which packers were used 330; kind Lead
- Screen or Strainer: Was well finished with screen? Yes; kind of screen Red Brass;  
 length of screen 10 ft.; diameter 6" inches; size of openings 20 slot
10. Head: Does well at present overflow without pumping? Capped; did it overflow when new? yes;  
 if flowing, give pressure \_\_\_\_\_ lb. per sq. inch; or height water will rise in a pipe \_\_\_\_\_ ft. above surface;  
 original pressure or head \_\_\_\_\_; if not flowing, give water level in well \_\_\_\_\_ ft. below surface.
11. Pump: Is the well pumped? Yes; kind of pump Jet (Offset);  
 size or capacity of pump 1720 GPH @ 50'; kind of power Elec.
12. Yield: Natural flow at present (if any) \_\_\_\_\_ gallons per minute; original flow 1-1/2 gallons per minute;  
 well has been pumped at \_\_\_\_\_ gallons per minute continuously for \_\_\_\_\_ hours;  
 quantity of water ordinarily obtained from well 4000 gallons per day.
13. Use: For what purpose is the water used? Museum use - Drinking and Toilets
14. Quality of the water: \_\_\_\_\_; is there an analysis? No  
(Hard or soft, fresh or salty, etc.)
15. Cost of well, not including pump: \$2105.95 Temperature of water — ° F.
- Name of person filling blank Robert C. Haraden, Engineer Robert C. Haraden
- Date 1-15-57 Address Colonial National Historical Park,  
Yorktown, Virginia

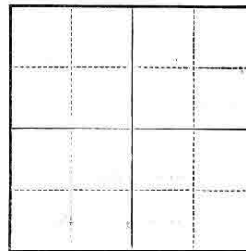
On the back of this sheet give the record of the beds through which the well passes and any other facts not given above.

6-0042



8-255  
(Jan. 1927)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WATER RESOURCES BRANCH

## RECORD OF WELL



Locate well on plat of section.

1. Location: State Virginia County James  
 Nearest P. O. Jamestown Direction from P. O. North  
 Distance from P. O. 1-1/4 miles; 1/4 sec.       , T.       , R.         
 If in city, give street and number Jamestown Maintenance Area
2. Owner: National Park Service Address Colonial National Historical Park  
Yorktown, Virginia  
 Driller: R.L. Margette Address Smithfield, Va.
3. Situation: Is well on upland, in valley, or on hillside? Level
4. Elevation of top of well: 13 ft. Above the level of MSL  
(Above or below) (Sea, depot, lake, or stream)
5. Type of well: Bored (Dig, driven, bored, or drilled); kind of drilling rig used Rotary  
(Solid tool, jetting, rotary, etc.)
6. Depth of well: 336 ft.; year in which well was finished 1956  
 Does well enter rock? No; if so, at what depth? — ft.; kind of rock —
7. Diameter: At top 9-3/4 inches; at bottom 9-3/4 inches.
8. Principal water bed: Sand (Gravel, sand, clay, or rock. If rock, state kind)  
 Depth to principal water bed 323 ft.; thickness of bed 13 ft.  
 If other water supplies were found, give depth to each —
9. Casings: Kind Stell-19.45 size 6"; length 327 ft.; between depths of 0 and 327 ft.  
 Kind —; size —; length — ft.; between depths of — and — ft.  
 Kind —; size —; length — ft.; between depths of — and — ft.  
 Packers (if any): Depth at which packers were used 327; kind Lead  
 Screen or Strainer: Was well finished with screen? yes; kind of screen Red Brass  
 length of screen 10 ft.; diameter 6" inches; size of openings 20 slot
10. Head: Does well at present overflow without pumping? No; did it overflow when new? No  
 if flowing, give pressure — lb. per sq. inch; or height water will rise in a pipe — ft. above surface;  
 original pressure or head —; if not flowing, give water level in well 6 ft. below surface.
11. Pump: Is the well pumped? yes; kind of pump Double Pipe Elevator (Offset)  
 size or capacity of pump 38GPM from 30' @ 50psi; kind of power Elec.
12. Yield: Natural flow at present (if any) — gallons per minute; original flow — gallons per minute;  
 well has been pumped at — gallons per minute continuously for — hours;  
 quantity of water ordinarily obtained from well 1000 gallons per day.
13. Use: For what purpose is the water used? 2 Residences and Maintenance Area
14. Quality of the water: —; is there an analysis? No  
(Hard or soft, fresh or salty, etc.)
15. Cost of well, not including pump: \$2057.29 Temperature of water — ° F.
- Name of person filling blank Robert C. Haraden, Engineer Robert C Haraden  
 Date 1-15-57 Address Colonial National Historical Park, Yorktown, Va.

On the back of this sheet give the record of the beds through which the well passes and any other facts not given above.

8-1042



## Utilities, Water System (cont'd.)

9. Yorktown Water System, 47,065' of pipe, annual consumption 36,228,000 gals., see Inventory of Property dated 1/20/60. Original system completed in 1931, consisting of well, pump and motor; improved in 1939 to add 2 spring collector boxes, 2 20,000 gal reservoirs, 3 pump houses, 1 10,000 gal. pressure tank and 1 100,000 gal. main storage tank.
10. JV 8-67 dated 3/23/60
11. JV 8-67 dated 3/23/60
12. JV 8-67 dated 3/23/60
13. JV 8-67 dated 3/23/60
14. JV 8-67 dated 3/23/60
15. JV 8-67 dated 3/23/60
16. JV 8-85: To capitalize meters installed as of 4/1/61, as follows:
- |                         |           |        |
|-------------------------|-----------|--------|
| 1/2", 3/4", & 5/8" .... | 145 ea. @ | 30.00  |
| 1".....                 | 4 ea. @   | 65.00  |
| 1 1/2".....             | 6 ea. @   | 90.00  |
| 2".....                 | 1 ea. @   | 120.00 |
| 4".....                 | 1 ea. @   | 160.00 |

## FIXED PROPERTY RECORD

DESCRIPTION OF PROPERTY (Include reference to the location within the Park; how the asset was acquired, name of contractor, etc.)

- Well, Edge Hill Residence, Yorktown, 35' depth, 60' length of pipe, annual consumption 100,000 gal. pumped.
- Well, Deepwell, 300' deep, Edge Marsh, length of pipe 30', pumped, annual consumption 95,000 gals., Jamestown, Va., constructed by R. L. Magette, Smithfield, Va. - 1958.
- Shallow Well, BPR Office, Jamestown, length of pipe 5', annual consumption 36,000 gals. pumped, acquired with property.
- Well, Artesian, New Towne, Jamestown, Va., 300' deep, length of pipe 660', annual consumption 910,000 gal., pumped, constructed 1956 by R. L. Magette, Smithfield, Va.
- Well, Artesian, Jamestown Visitor Center, 300' deep, length of pipe 660', annual consumption 910,000 gal., pumped, constructed 1956 by R. L. Magette, Smithfield, Va.
- Well, Artesian, Glasshouse Point, 300' deep, length of pipe 770', annual consumption 625,000 gals., pumped, constructed 1956 by Service Plumbing & Heating.
- Deep Well, Jamestown, Maintenance Area for quarters 127 and 129, length of pipe 415', annual consumption 185,000 gals., pumped, constructed 1956 and 1957.
- Water system, Ringfield Picnic Area, Colonial Parkways, Yorktown, Va., length of pipe 5,225', annual consumption 150,000 gal., piped from Newport News Waterworks through Naval Weapons Station, pumped, contracted in 1956 by Fergusson Corp.

| Line | DATE    | REFERENCE |            | Unit   | QUANTITY     |                   | COST         |                |                   |
|------|---------|-----------|------------|--------|--------------|-------------------|--------------|----------------|-------------------|
|      |         | Journal   | Vou. Other |        | No. of Units | Accumulated Total | Direct Costs | Indirect Costs | Accumulated Costs |
| 1    | 1/26/60 | 8-41      |            | System | 1            | 1                 | \$ 200.00    |                | \$ 200.00         |
| 2    | 1/26/60 | 8-41      |            | "      | 1            | 2                 | 1,170.50     |                | 1,370.50          |
| 3    | 1/26/60 | 8-41      |            | "      | 1            | 3                 | 100.00       |                | 1,470.50          |
| 4    | 1/26/60 | 8-41      |            | "      | 1            | 4                 | 1,052.98     |                | 2,523.48          |
| 5    | 1/26/60 | 8-41      |            | "      | 1            | 5                 | 1,052.97     |                | 3,576.45          |

G.L. Acct. General Classification  
No. 100.8 UtilitiesSub-Classification  
Water SystemsRegion State Park or Office  
One Virginia Colonial NHP

MAY 1956  
 MAY 1956

UNITED STATES DEPARTMENT OF THE INTERIOR  
 NATIONAL PARK SERVICE  
 COMPLETION REPORT OF CONSTRUCTION PROJECT

REPORT 7 SPL

|                               |                                   |              |          |
|-------------------------------|-----------------------------------|--------------|----------|
| REGION                        | AREA                              | COUNTY       | STATE    |
| One                           | Colonial National Historical Park | James City   | Virginia |
| PROJECT OR JOB TITLE          | PROJECT NO.                       |              |          |
| Water Supply Wells            | U-36                              |              |          |
| LOCATION IN AREA              | MAP PLAN NO.                      | BUILDING NO. |          |
| Jamestown                     |                                   |              |          |
| WORKING DRAWING NO. AND TITLE |                                   |              |          |

|                                                                |                     |
|----------------------------------------------------------------|---------------------|
| APPROPRIATION TITLE AND SYMBOL                                 | ACCOUNT NO.         |
| 14X1035 Construction NP3 - 14X1037 Construction, Liq. of C. A. | 514.3 & 332.1       |
| CONTRACT NO.                                                   | DATE WORK STARTED   |
| 14-10-108-189                                                  | 3-5-56              |
| NAME OF CONTRACTOR                                             | DATE WORK COMPLETED |
| R. L. Magette                                                  | 4-20-56             |
| ADDRESS                                                        |                     |
| P.O. Box 149, Smithfield, Virginia                             |                     |

### COST ANALYSIS

| CONSTRUCTION ITEMS                                                                           | QTY      | UNIT COST IN PLACE | TOTAL COST IN PLACE |
|----------------------------------------------------------------------------------------------|----------|--------------------|---------------------|
| 1. Drilling 6" Diameter Well<br>(Jamestown Maintenance Area)                                 | 336 L.F. | \$2.50             | \$ 840.00           |
| 2. Furnishing, Installing and Sealing 6"<br>I.D. (19.45#/Ft.) Casing (J'town Maint. Area)    | 327 L.F. | 2.45               | 801.15              |
| 3. Testing for yield and drawdown<br>(Jamestown Maintenance Area)                            | 8 hrs.   | 10.00              | 80.00               |
| 4. Drilling 6" Diameter Well<br>(Jamestown Visitor Center)                                   | 340 L.F. | 2.50               | 850.00              |
| 5. Furnishing, Installing and Sealing 6"<br>I.D. (19.45#/Ft.) Casing (J'town Visitor Center) | 331 L.F. | 2.45               | 810.95              |
| 6. Testing for yield and drawdown<br>(Jamestown Visitor Center)                              | 16 hrs.  | 10.00              | 160.00              |
| Change Order No. 1 - Well screens & fittings                                                 |          |                    | 570.00              |
| Change Order No. 2 - Strainer Valve                                                          |          |                    | 50.75               |
| TOTAL                                                                                        |          |                    | \$4,162.85          |

### SUMMARY OF EXPENDITURES

|                                        |           |                        |
|----------------------------------------|-----------|------------------------|
| PERSONAL SERVICES                      | EQUIPMENT | MATERIALS AND SUPPLIES |
| OTHER                                  |           |                        |
| 07 - Contractual Services - \$4,162.85 |           |                        |

### CHANGE ORDERS

|                          |          |         |       |
|--------------------------|----------|---------|-------|
| ORIGINAL CONTRACT AMOUNT | FIRST    | SECOND  | THIRD |
| \$2,943.00               | \$570.30 | \$50.75 |       |
| FINAL CONTRACT AMOUNT    | FOURTH   | FIFTH   | SIXTH |
| \$4,162.85               |          |         |       |

THIS PROJECT OR JOB HAS BEEN COMPLETED IN ACCORDANCE WITH  
 APPROVED DRAWINGS, SPECIFICATIONS, AUTHORIZED CHANGES

|                                       |         |
|---------------------------------------|---------|
| SUBMITTED BY (Name and title)         | DATE    |
| James M. Stump, Project Engineer      | 5-7-56  |
| George C. Emery, Asst. Superintendent | 5-30-56 |

(ATTACH NARRATIVE STATEMENT, PHOTOGRAPHS, AND "AS BUILT" DRAWINGS TO THIS FORM)

NARRATIVE REPORT

Contract No. 14-10-108-189  
Water Supply Wells  
Jamestown Visitor Center  
Jamestown Maintenance Area  
Colonial National Historical Park

Accounts 514.3 & 332.1

Base Contract

Invitation for bids - Nos. 8 - 14, dated January 24, 1956  
Bids Opened - February 8, 1956  
Number of Bids received - Four (4)  
Low Bidder - R. L. Magette, P. O. Box 149, Smithfield, Virginia  
Total Base Bid (items 1 through 6) - \$2,943.00  
Notice of Award - February 9, 1956  
Date of Contract - February 9, 1956  
Notice to Proceed - February 15, 1956  
Designated Commencement Date - February 21, 1956  
Actual Commencement Date - March 5, 1956  
Designated Number Calendar Days to Complete - 100  
Designated Completion Date - May 31, 1956  
Actual Completion Date - April 20, 1956  
Final Inspection Date - April 25, 1956  
Final Acceptance Date - April 26, 1956  
Final Estimate Submitted - April 26, 1956

Change Orders

Change Order No. 1 - dated February 23, 1956 - was for the installation of 10 lin. ft. of 6 inch red brass well screen in each of the two wells covered by the Contract.

Change Order No. 2 - dated April 18, 1956 - was for the installation of a brass strainer valve in lieu of a bailer plug on the bottom of the Well Screen for the Jamestown Maintenance Area Well.

There is an abundant supply of water available at the Jamestown Visitor Center well. Under normal conditions the well flows at the surface. When delivering 100 gallons of water per minute the drawdown is approximately 41 feet.

The Jamestown Maintenance Area well is adequate for the purpose intended. The static water level is five (5) feet below the surface and when pumped at the rate of 85 gallons per minute the drawdown is approximately 60 feet (water level 65 below the surface).

Other Supporting Information



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
WASHINGTON 25, D. C.

October 29, 1959

IN REPLY REFER TO:  
154-OBL

|                                     |                       |
|-------------------------------------|-----------------------|
| REGION ONE                          |                       |
| NOV 5 1959                          |                       |
| <input checked="" type="checkbox"/> | Reg. Director         |
| <input checked="" type="checkbox"/> | Asst. Reg. Dir.       |
| <input checked="" type="checkbox"/> | Chief, Conservation   |
| <input checked="" type="checkbox"/> | Chief, Ranger Act.    |
| <input checked="" type="checkbox"/> | Chief, Interpretation |
| <input checked="" type="checkbox"/> | Chief, Admin.         |
| <input checked="" type="checkbox"/> | Chief, Rec. Mgmt.     |
| <input checked="" type="checkbox"/> | Chief, Training       |

Memorandum

To: Regional Director, Region One

From: Chief, Water Resources Section

Subject: Addition of Well Record Forms to Docket 1, Colonial  
N.H.P.

The attached well record forms which Superintendent Abbott sent us in January should be placed in Docket 1 which was distributed with several other dockets on August 27.

*A. van V. Dunn*  
A. van V. Dunn  
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent, Colonial, w/c attachments  
Chief, EODC (2), w/c attachments

Colonial National Historical Park  
Yorktown, Virginia 23490

L54 SER(PC)

February 14, 1969

Memorandum

To: Regional Director, Southeast Region

From: Superintendent, Colonial

Subject: Preliminary Water Resources Studies and Acquisition of Water  
Rights Programs 1970 - 1973 FY

The sources of Colonial National Historical Park's water supply are as  
follows:

Yorktown - City of Newport News.

Irby residence in Yorktown - well (depth 50 feet).

Beach picnic area and Ringfield - City of Newport News.

Great Neck picnic area - City of Williamsburg.

Jamestown area (Jamestown Island, Glasshouse Point, utility area) -  
3 wells (depth 340 feet each).

It is not anticipated that this Park will need additional sources of  
water within the next five years.

James W. Corson

In duplicate



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
General Hydrology Branch  
P. O. Box 5083  
Raleigh, North Carolina 27607

November 22, 1966

Mr. Edwin W. Reed  
Chief, Water Resources  
National Park Service  
Department of the Interior  
Washington, D. C. 20242

Dear Ed:

Many thanks for your help in obtaining the site location for me at Jamestown, Virginia. Due to darkness and a broken water pump, we did not go as deep as planned. We will send you a copy of the geophysical logs, together with cuttings and core descriptions, when we have processed the material here in our lab.

The hole bottomed in Cretaceous at 370 feet and geophysical logs were obtained to 365 feet.

With best regards,

Sincerely yours,

  
Philip M. Brown  
Research Geologist

WRG  
8/7

Southeast Region  
Richmond 40, Virginia

AUG 1 1962

D5039

Memorandum

To: Director

From: Regional Director, Southeast Region

Subject: Water Supply Situation - Colonial NHP

The U. S. Naval Weapons Station, a neighboring agency of Colonial NHP, purchases its water from the City of Newport News and resells to the Park through its distribution system and a connecting 4 inch pipeline. The Park in turn supplies water to a limited number of private individuals within its boundaries who can be conveniently served from principal mains installed to meet the Park needs.

Recently the Superintendent was notified by the Navy that due to increased usage they might have to curtail the amount of water sold to Colonial NHP. Ultimate discontinuance of the service was also mentioned and the Superintendent was encouraged to seek a separate means of supply. The Superintendent immediately investigated the possibility of making a direct connection to the closest point of the 12 inch main of the Newport News system, so that the Park's requirements could be met independently of the existing arrangement with the Navy. To do so we would have to construct about 2 miles of 10 to 12 inch pipeline at a cost of some \$82,000.

This arrangement, however, would have certain marked advantages for the Park. It would relieve it of dependency upon an agency whose own growing needs take precedent over the Park's, and would eliminate the necessity of pumping as is done now in order to maintain proper operating pressures in Colonial's distribution system. The City of Newport News is not desirous of permitting such a connection, but might be persuaded to do so if approached in an appropriate manner.

We are now confronted with possible involvement in a multi-party arrangement as may be implied by the enclosed copies of correspondence from Congressman Downing and the Superintendent. Basically, we believe there is no precedent or authority for this Bureau to provide

utility services and facilities to citizens in Yorktown or elsewhere, unless to do so is incidental to satisfying the needs of the Park and its visitors. Especially is this true in connection with supplying non-governmental groups located outside of a park's boundaries.

While we are not able to predict exactly what direction the meeting mentioned by the Superintendent will take, please note that he has requested guiding advice from both you and this office. Our belief is that the proper solution to the present problem would be assumption by the County of ownership and operation of water and sewage systems now owned and operated by the National Park Service with this Service and the Navy becoming customers.

(Sgd.) Elbert Cox

Regional Director

Enclosures

Copy to: Supt., Colonial

Colonial National Historical Park  
Yorktown, Virginia

D8030

July 24, 1962

AUG 1 1962

Memorandum

To: Regional Director, Southeast Region

From: Superintendent, Colonial

Subject: Water Supply, Yorktown

Congressman Thomas M. Downing has set up a meeting for Saturday, August 11, with City Manager J. C. Biggins of Newport News, Admiral Frank L. Pinney, Jr. of the Weapons Station, and the writer to discuss water supply in the Yorktown area.

The meeting is likely to turn to the possibility of extending Newport News service from the Yorktown High School along Route 17 which has been subject to discussion between us, PCP U-80. This relates to the claim of deficiency in water supply at the Naval Weapons Station, as per my memorandum of May 22 to you.

Before the meeting with the Congressman it would be appreciated if we could have any comments you or the Washington Office may have with regard to this problem and also your reaction to the problem of encroachment upon explosive safety distances treated in my memorandum of June 5 to you.

Stanley W. Abbott  
Superintendent

In duplicate

Enclosure - Copy of Congressman Downing's letter

Dear Stan:

As you may know, these people have been requesting such service for years to no avail and I believe the time has now arrived for them to have this service.

Believing that we should give this matter serious consideration and since there are three separate agencies involved, I was wondering whether you; Mr. J. C. Biggins, City Manager of Newport News; and Captain Frank Pinney, Commanding Officer of the Naval Weapons Station, could be my guests at a luncheon at Nick's Restaurant, Yorktown, Virginia, Saturday, August 11th at 12:30 p.m. If this time is not convenient, please let me know.

With every good wish, I am

Sincerely,

Thomas N. Downing

TND/j

McGuinness - Int. 2738



GEOLOGICAL SURVEY

For Release MAY 9, 1955

*Put in Yorktown  
or Colonial File  
Please*

**DEPARTMENT OF THE INTERIOR**  
**INFORMATION SERVICE**

Conrad L. Wirth  
National Park Service

D-0

*2 Gate 139*  
*9 June*  
*W.R. Fite*

**AMPLE GROUND-WATER RESERVES IN HISTORIC YORK-JAMES PENINSULA, VIRGINIA**

Occurrence and availability of ground-water and the character and distribution of water-bearing formations in the York-James Peninsula, Va., are described in a Geological Survey report prepared in cooperation with the Virginia Division of Geology and released today by Secretary of the Interior Douglas McKay.

Areas covered in the report are all in the Coastal Plain of eastern Virginia. Included are central and eastern Henrico County, eastern Hanover County, and all of King William, New Kent, Charles City, James City, York, Warwick, and Elizabeth City Counties.

The largest yields are obtained from wells penetrating relatively thick sands and gravels of the Mattaponi formation. Municipal and industrial supplies have been developed from these beds at West Point, Williamsburg, Camp Peary, Yorktown, Lee Hall, Fort Eustis, and Newport News. Water yields of more than a million gallons a day have been obtained from several individual wells in the area, and it is thought that similar wells could be constructed in a number of other favorable locations.

In the western and central parts of the area, water is of excellent chemical quality, although hard in a few places. To the east the water contains a progressively higher chloride concentration, so that in the lower peninsula water from deep wells is unsuitable for many purposes.

Large supplies of good-quality ground-water, still untapped by wells, are believed present in Charles City, New Kent, and eastern King William counties and may be of interest to prospective industrial users.

An experiment carried out at Camp Peary in 1946 showed that it is possible to utilize deep artesian beds now saturated with water having a high chloride content as storage reservoirs for fresh water. The report describes this artificial-recharge experiment in detail. Records of 533 wells and 154 chemical analyses also are included.

The formations present begin at the west with Paleozoic(?) granite and Triassic sandstone, cropping out or occurring near the surface along the Fall Zone in Hanover and Henrico Counties. Resting on these are unconsolidated Coastal Plain sands, marls, and clays, which thicken eastward from a few feet along the Fall Line to more than 2,000 feet at Newport News.

The formations include Cretaceous sands and clays of the Potomac group. Similar sediments of Late Cretaceous(?) and Paleocene age are given a new formational name in this report, the Mattaponi formation.

The Aquia and Nanjemoy formations of Eocene age are well developed in the Fall Zone area, but the Aquia and the lower Eocene portion of the overlying Nanjemoy formation do not extend very far to the east. The middle Eocene portion of the Nanjemoy, identified from a study of foraminifers (microscopic fossils) in well cuttings, is well developed in the central portion of the area, but only the Chickahominy formation of late Eocene (Jackson) age is recognized with certainty to the east.

The Chesapeake group of formations of Miocene age, largely marls, is present throughout the area, as is the younger (Pleistocene) Columbia group of terrace formations.

Ground-water is obtained under artesian pressure from deep wells, most of which penetrate sandy beds of Cretaceous, Paleocene, or Eocene age. A very few wells in the western part of the area, where Coastal Plain formations are thin, obtain water from consolidated bedrock, and a few wells in the central part of the area obtain water from hard Eocene limestone beds or from thin sandy beds in the Miocene. A great many shallow wells obtain water for domestic use from Pleistocene terrace formations.

The author of this report on the "Geology and ground-water resources of the York-James Peninsula, Va.," is D. J. Cederstrom, a Survey geologist in the Ground-Water Branch. Pending publication as a Geological Survey water-supply paper, typewritten copies may be examined at the Geological Survey, 1242-G General Services Building, 18th and F Streets NW., Washington, D. C., and Natural Resources Building, McCormick Road, Charlottesville, Va.

x x x

Contract No. \_\_\_\_\_

## APPLICATION FOR WATER SERVICE

Colonial National Historical Park  
Yorktown, Virginia

Application is hereby made for water service from the water system of Colonial National Historical Park at Yorktown, Virginia, for the premises located and described as follows:

| <u>Nature of Premises</u> | <u>Street</u> | <u>Block No.</u> | <u>Lot No.</u> |
|---------------------------|---------------|------------------|----------------|
|                           |               |                  |                |
|                           |               |                  |                |
|                           |               |                  |                |

I agree to comply with the regulations of the National Park Service governing the furnishing of water service and to pay for all water supplied to the above premises, in conformity with the currently approved water rate schedule for the Park.

The amount of \$ \_\_\_\_\_ accompanying this application represents a deposit guaranteeing the payment of past due accounts. This deposit will be refunded after the expiration of one year, upon satisfactory assurance to the Park Superintendent that future quarterly bills will be paid promptly.

This agreement shall continue in effect from year to year until terminated by the applicant or the Government upon ten days' written notice to the other. Failure to pay water bills within ten days of billing shall automatically terminate this service agreement without notice, demand or action brought.

This permit shall terminate upon the violation of any of the conditions hereof or of any Act of Congress or regulation of the Secretary of the Interior governing the park or anything in it, or at the discretion of the Director, National Park Service.

Neither Members of, nor Delegates to Congress, or Resident Commissioners shall be admitted to any share or part of this permit or derive, either directly or indirectly, any pecuniary benefit to arise therefrom.

|        |       |
|--------|-------|
| _____  | _____ |
| Renter | Owner |

Application accepted:

|            |          |
|------------|----------|
| Date _____ | By _____ |
|            | Name     |

Service under this contract commenced \_\_\_\_\_.

*This form used since 1941  
Still in use 1946 (ad)*

Docket Information

Number of Documents in Docket 39

Documents Dated from 5/9/1955 to 2/14/1969

Docket Compiled: 2/14/2011