



WATER-RIGHT DOCKET

George Washington Birthplace National Monument

Docket No: 1

MANSION WELL

Supporting Hydro Data

07-26-1965: water well completion report

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT
DIVISION OF MINERAL RESOURCES
Box 3667, University Station, Charlottesville, Virginia

May 25 3 17 PM '65

WATER WELL COMPLETION REPORT

OWNER: National Park Service Mailing Address: Box 679, Fredericksburg, Va.
TENANT: George Washington's Birthplace Mailing Address: Westmoreland County Oak Grove, Va.
DRILLER: Sydnor Pump & Well Co., Inc. Mailing Address: 1305 Brook Rd., Richmond, Va.
WELL LOCATION: County: Westmoreland Approx. 2 miles
Northeast (direction) of Rt. 3 end xxx of Rt. 204

(Give direction and distance in feet or tenths of a mile from two reference points—roads, towns, rivers, etc.—on county highway or other map)

WATER CONDITIONS	
DEPTH	
STATIC WATER LEVEL 18 1/2'	
WATER ZONES (fissures or formations supplying water)	
451 (from) ft	466 (to) ft
QUANTITY OF WATER	
WELL PUMPED (or bailed) at 57 Gal. per Min. with 15 1/2 feet DRAWDOWN after 12 HOURS PUMPING.	
FLOW (natural) _____ G.P.M. HEAD _____ ft. (above ground)	
REMARKS:	
QUALITY OF WATER	
COLOR clear TASTE _____	
ODOR _____ OTHER _____	
ANALYSIS: AVAILABLE—Yes ☐ No ☐ ATTACHED Yes ☐ No ☐	
TEMPERATURE _____	
WATER (from) _____ ft. (to) _____ ft.	
(spec. blackish, iron, sulfur, acid, other)	
USE OF WATER: Domestic ☐ Town ☐ Industry ☐ Farm ☐ Public ☒	
CONSTRUCTION	
RIG TYPE (or method) Rotary (rotary, cable, bored, driven, etc.)	
DATE: Started 6/16/65; Completed _____	
TOTAL DEPTH 667 ft.	
BEDROCK at None ft.	
GROUTING INFORMATION	
METHOD USED Pressure	
GROUTING MATERIAL Cement and water	
DEPTH OF GROUTING 50'	
REMARKS: Electric log run by USGS	

HOLE SIZE		CASING SIZE	
70 (in)	0 (from) ft	496 (diam)	0 (in)
7	496	667	496
SCREEN (or perforations)			
6 (diam)	451 (from) ft	466 (to) ft	496 (opening size)
PUMP (installed)			
TYPE _____ Cap. (gpm) _____			
H.P. _____ Depth of intake _____ ft.			

RECEIVED
JUL 26 1965
DIVISION OF MINERAL RESOURCES

LOG

FURNISHED BY Sydner Pump & Well Co., Inc. DATE: July 23, 1965

DEPTH (feet)		TYPE OF SOIL OR ROCK PENETRATED (gravel, clay, etc., hardness, color, etc)	REMARKS (water, caving, shot, screen, sample, etc)
FROM	TO		
0	1	Top soil	
1	25	Sand and gravel	
25	40	Sand and gravel	
40	75	Blue clay - sand mix	
75	100	Blue clay - gravel mix	
100	230	Sand and clay, green gray to black clay, black sand, sand fine to medium grained red brown clay balls and broken shell	
230	360	Sand and hard shell limestone - gray coarse to fine black sand, coarse limestone broken shell, red brown clay balls	
360	400	Sand and clay red brown fine to medium sand, red brown and gray clay balls.	
400	420	Sand white to gray medium to coarse sand	
420	437	Clay red brown and gray clay balls	
437	470	Sand, white to coarse to medium sand	
470	570	Clay hard red brown clay mix with a little fine sand	
570	640	Red clay balls coarse sand mix, hard red and brown clay and fine sand mix	
640	667	White sand coarse, gray sand mix	

(Use additional sheets if necessary)

Other Supporting Information

Volume III, Section I
Utilities Inventory
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MASTER PLAN
FOR PRESERVATION AND USE
OF
GEORGE WASHINGTON BIRTHPLACE NATIONAL MONUMENT

*Shirk: file
Please
George Washington
Birthplace NM
Water Right Grant
Cons. file
Viv*

Volume III, General Park Information
Section I. Utilities Inventory

Prepared by: Mack Greene Date April, 1960
Administrative Assistant

ACCEPTED BY: Russell A. Gibbs Date May 12, 1960
Superintendent

April, 1963

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Utilities Inventory
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1. Water System

Water is obtained from two sources, an artesian well approximately 180 feet deep serves the Mansion, Picnic, Office and Residence Areas. A pond supplies water for lawns, garden and related purposes during dry periods. Both systems are Government owned.

The artesian well is located 160 feet northwest of the Memorial Mansion. Sanitary conditions are excellent in the building that encloses the pump facilities. The pond dam and pump are located at the head waters of the Dancing Marsh area, the usage of this water does not necessitate any special sanitary requirements.

A Deming "Oil-Rite" deep well pump with a 10-inch stroke is used at the artesian well which pumps from an eighty-two foot depth. For pond water pumping, a Worthington Centrifugal pump is used, having a capacity of 60 gallon per minute.

The 1½" to 2" galvanized pipe supply lines are direct from pumps to storage tanks for both units.

Buried underground at the well site is a 1500 gallon capacity tank for storage. A 30 gallon air storage tank is used for the pond system.

No treatment of the water for either system is necessary.

Underground throughout the area is 8,200 feet of 2" galvanized pipe for distribution mains. The water pressure is sufficient for its present use, however, it is inadequate to serve fire hydrants or similiar devices where a high pressure might be desired.

No metering system is used, thus the amount used from either system is unknown.

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2. Sewerage Systems

The land is generally level but a large portion of the area holdings is marshland. The soil is sandy and loose, with very few stone.

Sewage collected from the comfort stations near the Memorial Mansion and from the employee's rest room in the Colonial Kitchen building is piped to a septic tank located about 400 feet north of the kitchen building. The effluence from this septic tank is disposed of in a leaching trench. The exact sizes of this septic tank or the size of sewer lines are unknown as there is no record available regarding the construction since this was done by the Wakefield Association.

The residence sewage is combined and treated in a septic tank located behind the residences. An absorption field disposes of the effluent. No information on size or capacity.

Sewage from the comfort stations at the picnic ground is conducted to a septic tank located between the picnic area and the log house. This system presently is operating satisfactorily.

All the sewage systems were put in by the Wakefield National Memorial Association and consequently, no information is obtainable on the detailed construction since none have given serious trouble since their installation. They no doubt are subject to give trouble at anytime considering the length of time in use and more especially where underground growth could penetrate to the absorption field lines.

3. Garbage and Refuse Disposal

The refuse is collected from the two residences, picnic area and from around the historic site once a week or as needed. Combustible and noncombustible material is collected daily. All refuse and wet garbage is disposed of by pit method. No other disposal facilities are used.

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4. Power System

The Virginia Electric and Power Company supplies commercial power to the area.

The supply lines within the area are owned and maintained by the Government. Individual meters are not used, however, the post office is metered separately since it is a concession operation. There is .98 mile of overhead lines and .38 mile of underground cable. Both 110 and 220 volts are provided from this 1 phase system. Conductors are of No. 6 wire, except for the No. 12 used in the buildings wiring.

5. Communication Systems

An extension of the Tidewater Telephone Company public system is used by the National Park Service for two outlets which are the headquarters building and the residence area. The length of the overhead lines is .23 mile and .10 of a mile is underground cable which we maintain. Also, within the area is a battery operated system completely owned and operated by the National Park Service for inter-communication purposes. It incorporates .33 mile of overhead line and .26 mile of underground cable with 7 outlets. Our system is the old fashioned type telephone units which are very troublesome and presently three units are inoperative.

No switchboard or radio facilities are used in the area.

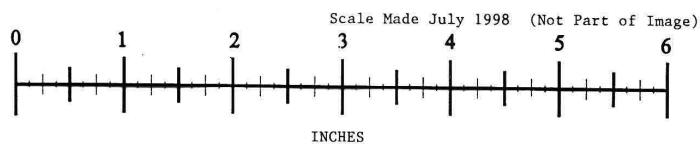
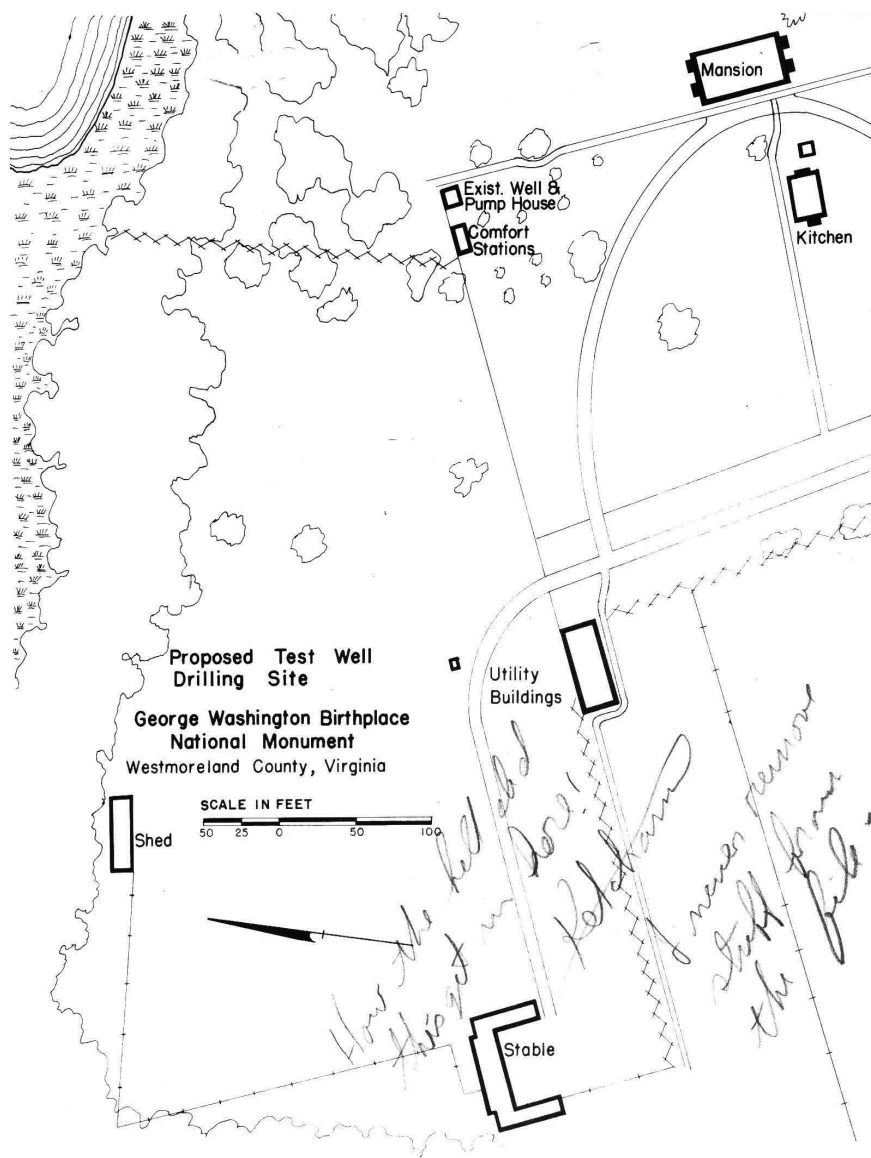
A burglar alarm system is Government owned in the Memorial Mansion but is in poor condition and generally out of order due to age.

6. Fuel Systems

At the two residences and at the Memorial Mansion, fuel oil is used for heating. Each unit has a 1,000 gallon storage tank. The heating plant for the Memorial Mansion also serves to heat the Colonial Kitchen building. The Kitchen basement is the location for this heating plant. With the exception of the Office building, which is heated by an oil stove, fired by kerosene with a 285 gallon storage tank, all other buildings are unheated.

The fuel is purchased on the open market at the present time and the suppliers are subject to vary. The average frequency of truck delivery is about once a month during the heating season with a quantity delivery varying from 600 to 800 gallons.

April 1963



Docket Information

Number of Documents in Docket 7

Documents Dated from 7/23/1965 to 7/26/1965

Docket Compiled: 3/22/2011