



WATER-RIGHT DOCKET

Blue Ridge Parkway

Docket No: 34

MOUNT PISGAH.

Supporting Hydro Data

09-25-1962: hickory well drilling co. september 25, 1962

HICKORY WELL DRILLING CO.

TELEPHONE DI 5-4126

P. O. BOX 602

HWY. 70 S. W.

HICKORY, NORTH CAROLINA

M. Blue Ridge Parkway

Date Sept. 25 1962

1.0 mi. on 1230

1.0 mi. on 1230

ORDER # 2-101

WELL 3, Mount Pisgah

100' well at \$1.00 per ft.

\$ 100.00

1 1/2" 45' of 5-3/8" galv. water well casing @ \$9.50

13.75

1" electric motor pump

100.00

2 hours pumping at \$1.01 per hr.

2.02

\$ 516.57

10' 1/2" 45' of 5-3/8" galv. water well casing @ \$9.50

10' 1/2" 45' of 5-3/8" galv. water well casing @ \$9.50

LOT: 0-5' black clay

7-15' soft rock

25-45' blue rock & qtz.

45-57' qtz.

57-100' blue rock & qtz.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

WATER ANALYSIS

W. R. Lab. No. NC 34471

Location <u>Pishgah Mountain, Blue Ridge Parkway, N. C. - Haywood County</u>			
Field No: <u>MP-1; NC-G-61 (Rev.)</u> . Drilled well. Depth: <u>100 ft.</u> Diameter:			
Source <u>5 in.</u> Cased to: <u>27.5</u> . Drilled: <u>9/61</u> . Collected about <u>90</u> . Owner: <u>NPS</u> .			
Use: <u>Public Supply</u> . WBT: <u>GW Biotite Gn.</u> Water level: <u>7</u> . Yield: <u>52 gpm.</u>			
Date of collection <u>September 12, 1961</u>			
Gage height(ft.) _____ Discharge(sec. ft.) _____ Temp.(°F) _____			
(Parts per million)			
Silica (SiO ₂).....	<u>4.6</u>	Carbonate (CO ₃).....	<u>0</u>
Iron (Fe).....	<u>.02</u>	Bicarbonate (HCO ₃).....	<u>5</u>
Manganese (Mn).....	<u>.01 1/2</u>	Sulfate (SO ₄).....	<u>.2</u>
Calcium (Ca).....	<u>.6</u>	Chloride (Cl).....	<u>.1</u>
Magnesium (Mg).....	<u>.2</u>	Fluoride (F).....	<u>.0</u>
Sodium (Na).....	<u>1.0</u>	Nitrate (NO ₃).....	<u>.1</u>
Potassium (K).....	<u>.5</u>	Phosphate (PO ₄).....	<u>.0</u>
Aluminum (Al)	<u>.0</u>		
Lithium (Li)	<u>.0</u>		
(Parts per million)			
Dissolved solids:		Color.....	<u>5</u>
Sum.....	<u>9</u>	Oxygen consumed:	
Residue upon evapo- ration @ 180°C.....	<u>7</u>	Unfiltered.....	
Hardness as CaCO ₃	<u>2 2/3</u>	Filtered.....	
Noncarbonate.....	<u>0</u>		
pH.....	<u>6.4</u>	Specific conductance (micromhos at 25° C.).....	<u>9</u>

1/ In solution when analyzed.

2/ Includes hardness of all polyvalent cations reported.

Mt. Pisgah

The Mt. Pisgah area (Fig. 4) is geologically and hydrologically very similar to the Tennessee Bald area. The structure, of the rocks that are predominately quartz biotite gneiss, strikes about N 50° E and dips about 70° to 80° to the northwest. Joints caused by sheeting are evident. A steep escarpment borders the south side of the area whereas the north side slopes more gently. The rocks along the south side of the area are relatively unweathered whereas the rocks on the north side of the area are moderately weathered. Most of the ground-water movement is to the north. A stream rises in a round-shaped valley on the north side of the area and flows north from the area through a narrow gap in the mountains. Several springs around the perimeter of the valley feed this stream.

Forty-five gpm of water are required for the area according to figures furnished by Park Service personnel. The extensive valley on the north side of the area affords a sizeable ground-water recharge area. Four test-drilling locations (ST-1 - ST-4) have been chosen. ST-2 (fig.4) near the valley outlet is considered to be the best test drilling location in the area. The yield from ST-2 and from a well at one of the other three locations would be expected to supply the required amount of water. There may be some objection to the location of ST-2 from a sanitary standpoint as it is located down gradient from all the proposed facilities. The location of ST-2 may be made accessible by minor roadwork on an existing trail. The location of ST-1 is accessible by this same trail. The location of ST-3 would require road construction. ST-4 is located along an existing state highway and would ^{be} readily be accessible to a drilling rig. It is estimated that the maximum depth of test wells drilled at the Mt. Pisgah area will be 200 feet.

Well at ST-2 - 150 - Accessible

Other Supporting Information

BLUE RIDGE PARKWAY

WATER SYSTEM DATA

AREA Blue Ridge Parkway DATE COLLECTED _____ COLLECTED BY _____)

1. Name of System: Mount Pisgah
2. Location: State North Carolina County Haywood General Area MP 408.6
Reference to permanent landmark _____
3. Source of Supply: Well Capacity 52 gpm
(Well, spring, stream, impoundment, etc.)
4. Type of System: Pumped to storage - Gravity distribution
(Pumped, gravity, etc.)
5. Treatment: None
(Filtration, Chlorination, Airation, etc.)
6. Distribution Mains: Size 8" Length 1122'; Size 3" Length 1270'
Size 6" Length 1433'; Size 2" Length 1608'
Size 4" Length 4167'; Size 1" Length 3881'
7. Pump Unit: Make Jacuzzi; Type Submersible; Model No. 5S4X20-T2
Serial No. 5F4Y13-52; Outlet 2" in.; Inlet 2-1/2 in.
(Size) (Size)
8. Power Source: Electric Motor: Make Franklin; HP 5;
(Elec., gas, generator)
Serial No. _____; Voltage 230; Amps 20;
RPM 3450; Type Submersible; Phase 3;
Cycles 60; Others _____; Stages _____
9. Control: Automatic Float; Manual _____;
(Float, Electrode, Pressure, Time)
Other _____
(Explain)

H & W

10. Pump Design: Capacity _____ gpm _____ 45 _____ gpm
 (Actual) (Design)
 Head _____ ft. _____ 338 _____ ft.
 (Actual) (Design)
11. Pump Housing: Type Const. Monitor Pitless _____; Size _____
 (Walls) (Roof)
12. Storage: _____ Underground _____; Type Const. Concrete _____
 (Pneumatic, elevated, underground, etc.) (concrete, wood, steel)
 Size _____; Capacity 225,000 gal.; Inlet 5085.0ft. 6 in.
 (Elev.) (Size)
 Outlet 5085.00 ft. 6 & 8" in.; Pressure Setting _____
 (Elev.) (Size) (if pneumatic)
13. Distribution: Water Closets 20 _____; Lavatory 20 _____; Urinal 10 _____;
 Drinking Fountain 21 _____; Hose Bibs 14 _____; Residences _____;
 Other Restaurant _____; Lodge _____; Gas Station _____
 & Seasonal Trailer
14. Metered or nonmetered: Metered _____; No. 3 _____; Size 3" _____
 No. 2 _____; Size 2" _____
 No. _____; Size _____
15. Fire Protection: Fire Hydrants 3 _____; Yard Hydrants _____
16. Water Analysis: SiO₂ 4.6; Fe .02; Mn .01; Ca .6; Mg .2; Na 1.0;
 K .5; HCO₃ 5; SO₄ .2; Cl .1; NO₃ .1; Dissolved Solids: Sum 9; Residue 7;
 Hardness 2; Color 5; pH 6.4; Specific Conductance 9
17. Condition of System: _____ Excellent _____
 (Repairs needed itemize)

Form No. 174
June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Park Blue Ridge Parkway	Region Southeast	Work Order No. 601-225016
Location in Park Mt. Pisgah Recreation Area	State(s) North Carolina	Fund Symbol 14X1037
☐ Contract and/or ☒ Day Labor	County or Counties Haywood	Year Programmed 1967
Work Order Title Picnic Ground & Campground Development, Utilities and Sanitary Disposal Station		PCP No. M-353, M-358, M-422 and U-286
		Master Plan No. PKY-BR-MP-2050E
		Master Plan Corrected By --
		As Built Drawings By --
		Date Started August 1966
		Date Completed May 1968

DESCRIPTION OF FIXED ASSETS (For completion by employee in charge of project)	TOTAL COSTS (For completion by FFO)
210 Roads & Parkways 3,500.00	
230 Utilities 30,223.15	
This NPS day labor project consisted of the following work: constructing 144 campground sites including fire places, tables, garbage cans, and tent pads; constructing 50 picnic sites including fireplaces, tables and garbage cans; constructing 17 drinking fountains in the campground and 6 drinking fountains in the picnic area; purchasing and installing approximately 450 lin. ft. of 6" water pipe, approximately 3800 lin. ft. of 4" water line, approximately 300 lin. ft. of 2-1/2" water line, approximately 1100 lin. ft. of 2" water line, approximately 340 lin. ft. of 1-1/4" water line, approximately 2,450 lin. ft. of 1" water line and all necessary valves and fittings; constructing a complete sanitary disposal station (sewage) for travel trailers consisting of approximately 400 lin. ft. of 12" wide paved road, approximately 150 lin. ft. of 4" sewer line, approximately 275 ft. of 1/2" water line, concrete pad, plus miscellaneous valves and fittings. The work also involved some 55 acres of site development and woods improvement.	87,212.45
240 Grounds & other Improvements 41,300.00	
The 400 lin. ft. of paved roadway is a capital addition to the Blue Ridge Parkway R&T facilities.	
262 Equip-not subject to Dep Funding 160.00	
The remainder of the project, except for the purchase of a saw, is a capital addition to the Blue Ridge Parkway B&U facilities.	
TOTAL	\$ 87,212.45

DISTRIBUTION	THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES		
1. To	Submitted	Title	Date
1. WASO	By: Earl W. Batten	Chief of Maintenance	6/5/68
2. SEC-DC	Approved	Title	Date
2. SERO	By: Ernest G. Whanger	Acting Superintendent	6/5/68
1. Blue Ridge	COSTS VERIFIED	Title	Date
	BY T. J. Baer	Regional Accountant	JUN 19 1968

Form 10-174A
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number

601-225016

Fund Symbol

14X1037

Year Programmed

1967

Park	Blue Ridge Parkway	Region	SE
Location in Park	Mt. Pisgah Recreation Area		
Work Order Title	Picnic Ground & Campground Development, Utilities and Sanitary Disposal Station		

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE		
(1) Personal Services.....	\$ 41,199.10	
(2) Travel.....	2,493.75	
(3) Contract Work	23,194.75	
(4) Supplies and Materials.....	1,971.90	
(5) Other Direct Expenses.....	6,163.65	
(6) Operation of Equipment.....		
(7) Depreciation of Equipment.....		
(8) Purchase of Construction Equipment.....		
(9) Purchase of Other Accountable Equipment.....	160.00 (saw)	
(10) Other Costs:		
(11) TOTAL COST CHARGED TO FFO FUNDS.....	xxxxxxxxxx	\$ 75,183.15
OTHER COSTS:		
(12) PS&S, AP, and/or Facilitating Services @ 16 %.....	\$12,029.30	
(13) Inventory and Other Non-Fund Costs		12,029.30
(14) GROSS WORK ORDER COSTS	xxxxxxxxxx	\$ 87,212.45
LESS:		
(15) Residual Value of Construction Equipment on Line 8.....	\$	
(16) Other Credits		
(17) NET COST OF FIXED ASSETS.....	xxxxxxxxxx	\$ 87,212.45

Identify other costs and other credits by line item entry, on an attached schedule, or explain in narrative.

DETAILED LISTING AND COST OF ACCOUNTABLE EQUIPMENT

PROJECT 225016 BLUE RIDGE

<u>ITEM</u>	<u>COST</u>
Power Saw, Homelite Model XL-12.	160.00
TOTAL	160.00

MT. PISHAH WATER SYSTEM

Tested September 23, 1965

Pump - Jacuzzi 4" Submersible Turbine, Model 5S4X20-T2, 5 H.P.,
3-phase, 230 volts.

Float Control Relay - B/W Controller Corp., Type L, 240 volt,
#892 primary coil and 24 volt # 883 secondary
coil.

Pitless Unit - Monitor No. 3PS-66-58-C4.

Electrical Enclosure - Hoffman No. A201606, Size 20" x 16" x 6"
NEMA Type 12.

Motor Starter - Allen Bradley # 709BAA-3-103, with F-35 quick trip heaters.

Lightning Protectors - G.E. No. 9L15CCB001 and G.E. No. 9LA15B23, 3 pole.

Float Switch - G.E. No. CR2931 - AW1.

NOTES:

1. Pump installed at 84' depth with 2" drop pipe.
2. Motor and cable insulation resistance to ground measures infinity
on Simpson 260 meter.
3. Current as read on clamp-on ammeter
Black - 21 amps
Red - 17 amps
Yellow - 18 amps
4. Measured voltages under load (all phases) reads 220 volts.

Well capitalized 4-1965 #516.57

FORM 10-131
(APRIL 1964)

PURCHASE ORDER

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Blue Ridge Parkway
P. O. Box 1710
Roanoke, Virginia 24008

(ISSUING OFFICE)

REQUISITION NO.

Clarke

THIS NUMBER MUST APPEAR ON
ALL PACKAGES AND PAPERS
RELATING TO THIS ORDER

DATE OF ORDER

March 11, 1965

ORDER NUMBER

3-730 H

ACCOUNTING CLASSIFICATION

1H1085, const., NPS

25 - 0330 - B-6

VENDOR'S NAME AND ADDRESS

Director
National Park Service
Washington, D. C. 20240

SHIP TO: (Consignee and Address):

Superintendent
Blue Ridge Parkway
Mount Pisgah
North Carolina

CONTRACT NO.

DISCOUNT TERMS

SHIP VIA

DELIVERY F.O.B.

TIME FOR DELIVERY

GOVT. S/L NO.

SHIPPING POINT

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
	To capitalize one test well at Mount Pisgah, North Carolina, drilled under Work Order No. 1-00-02b, dated 8/25/61, as follows:				
	Drilling	100	1.ft.	4.00	400.00
	Well Casing	27.5	"	.50	13.75
	Pump Test Set-up	1	job	100.00	100.00
	Pump Test	2	hr.	1.41	2.82
	Drilled September 1961				
				TOTAL	516.57

SIGNATURE

NAME AND TITLE

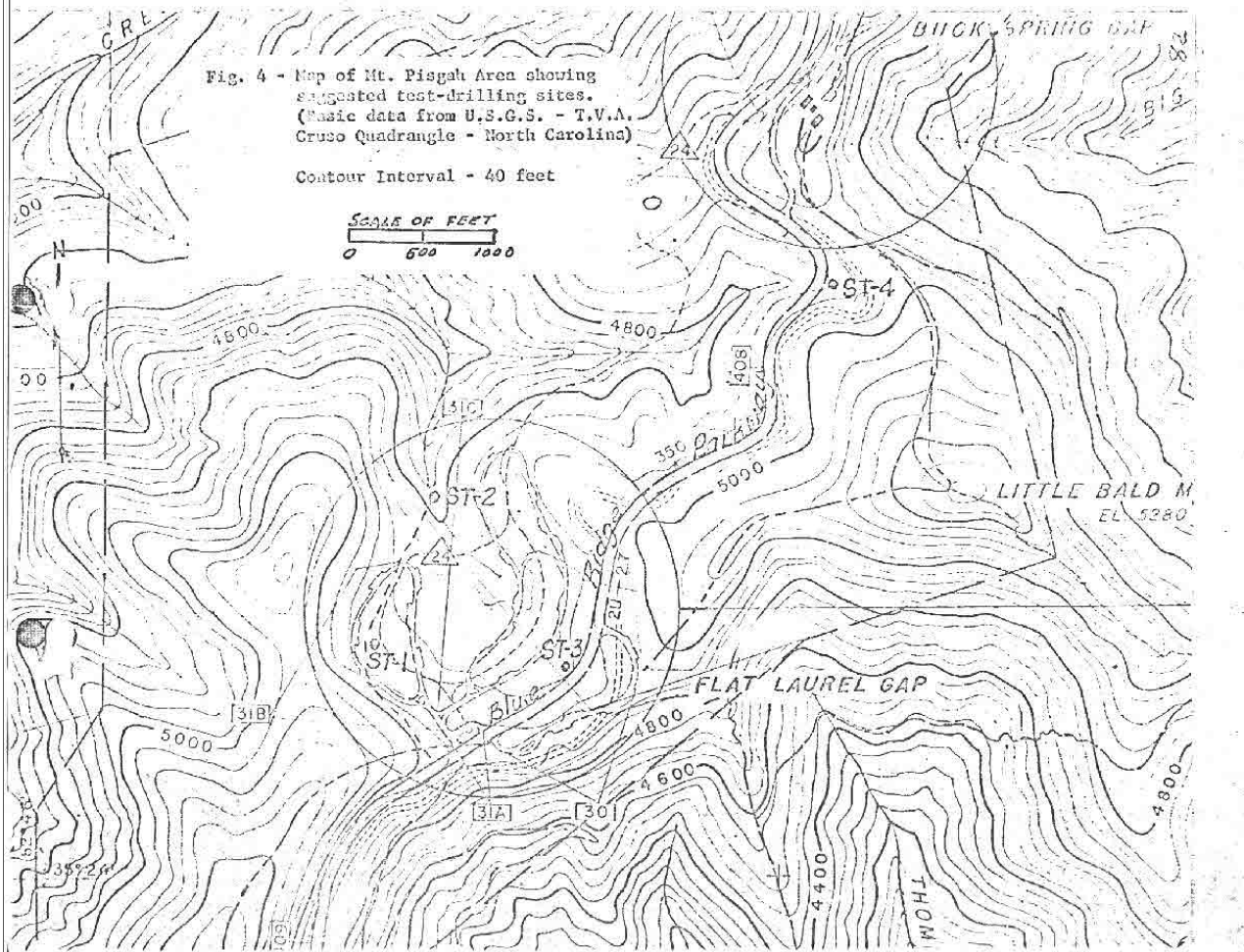
Forrest A. Wilmoth

General Supply Officer

PURCHASING OFFICER

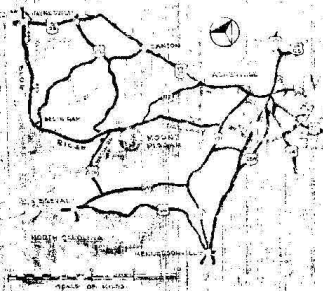
5. MEMORANDUM COPY

Maps and Miscellaneous Information





VICINITY MAP

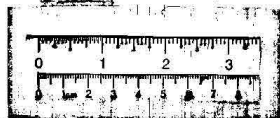


**EASTERN OFFICE
DESIGN & CONSTRUCTION
PHILADELPHIA, PENNSYLVANIA**

BLUE RIDGE PARKWAY MT. PISGAH RECREATIONAL AREA. NORTH CAROLINA. WATER SYSTEM

SHEET INDEX

- 1- COVER SHEET
- 2-3- LOCATION PLANS
- 4 WATER PUMP & PUMP CONTROL INSTALLATION.



WORKING DRAWINGS

SCALE	NAME	DESCRIPTION OF DESIGN
1" = 100'	WATER PUMP & PUMP CONTROL INSTALLATION	WATER PUMP & PUMP CONTROL INSTALLATION
1" = 100'	WATER PUMP & PUMP CONTROL INSTALLATION	WATER PUMP & PUMP CONTROL INSTALLATION
1" = 100'	WATER PUMP & PUMP CONTROL INSTALLATION	WATER PUMP & PUMP CONTROL INSTALLATION

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
PROJECT NO.	MD-3004

