



WATER-RIGHT DOCKET

Big Hole National Battlefield

Docket No: 2

HEADQUARTERS WELL #1.

Preliminary Docket Information

00-00-0000: water right record

WATER RIGHT RECORD

Park: BIHO

Docket Number:
Federal 2

IDENTIFICATION NO: BIHO, W, 24, 02, 17, A, F, 02

DITCH/WATER SYSTEM: Headquarters

SOURCE OF SUPPLY: Well #1

LOCATION: NE $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 24, T2S, R17W

WATER RIGHT:

Appropriator: United States of America, National Park Service

Application/Permit Number:

Certificate Record Number:

Date of Priority: May 26, 1965

Quantity of Water: 23 g.p.m.

Purpose: Domestic

Irrigated Land Description:

SUMMARY OF STATUS: This is a Federal water right consisting of a well, pump and pipe line. A Declaration of Vested Groundwater Rights was filed on January 13, 1967.

Approved _____ Lock For _____

ing Co., Helena, Montana—44887

File No.....

T. 2 S. R. 17 W.

ORIGINAL

County.....Beaverhead

Declaration of Vested Groundwater Rights

U.S. National Park Service (Under Chapter 237, Montana Session Laws, 1961)

Big Hole National Battlefield

c/o Superintendent, Yellowstone National Park

1. Mammoth Hot Springs, Wyoming

(Name of Appropriator)

(Address)

Wisdom

(Town)

County of.....Beaverhead.

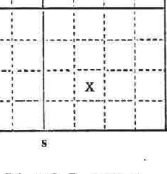
State of..... Montana

have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

N

SW1/4 SE Sec. 24 T2 S R17 W

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

- W  E
- S
- SW 1/4 Sec. 24, T2S, R17W
- Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.
3. The beneficial use on which the claim is based Domestic and irrigation
4. Date or approximate date of earliest beneficial use; and how continuous the use has been. June, 1965; continuous
5. The amount of groundwater claimed (in miner's inches or gallons per minute) 10 gpm
6. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof Irrigation use not fully developed. All lands owned by the United States.
7. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Submersible pump in a well adjacent to headquarters building
8. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Started May 26, 1965; completed June 25, 1965
9. The depth of water table Static: 76-87 feet below surface; first water encountered in drilling between 100 and 300 feet.
10. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Drilled well with 6-5/8" casing to 250 feet; mill knife slotted between 200 and 245 feet.
11. The estimated amount of groundwater withdrawn each year 8 acre feet
12. The log of formations encountered in the drilling of each well if available Attached
13. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record Nothing herein shall constitute a waiver by the United States of any rights, title, priority or interest it may otherwise have to use of this or any other water in the State of Montana.

FOR THE UNITED STATES OF AMERICA:

Signature of Owner _____

Supervisory Hydraulic Engineer

Date. Jan 13, 1967

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

144

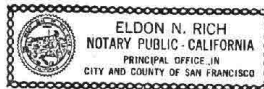
STATE OF CALIFORNIA

~~XXXXXXXXXXXXXXXXXXXX~~
 County of San Francisco ss.

Manuel Morris having first been duly sworn, deposes and
 say s that he is of lawful age and that he represents the appropriator
 and claimant of the order and water right mentioned in the foregoing declaration of
 vested groundwater rights ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~
~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~, that he knows the contents of said fore-
 going notice and that the matters and things therein stated are true.

X Manuel Morris

Subscribed and sworn to before me, this 12th day of January, 1967.



Eldon N. Rich
 Notary Public for the State of ~~Montana~~ California
 Residing at 450 Golden Gate Ave.
San Francisco, Calif. 94102
 My Commission expires January 30, 1968

STATE OF MONTANA, ss.
 County of Beaverhead.

116858

I hereby certify that the within instrument
 was filed in my office on the 7th day
 of Feb. A. D. 1967 at 10.13 min.
 past 10.13 o'clock A. M. and recorded on
 page 143-4 of Book 182 of
Water Well Records of Beaverhead
 County, Montana.

Attest my hand and seal

Lucy D. Day
 County Recorder

By _____ Deputy

Fee \$ 4.00

INDEXED

Reverse side of Declaration of Vested Groundwater Rights

SAN FRANCISCO PLANNING AND SERVICE CENTER
 Office of Land and Water Rights
 450 Golden Gate Avenue, Box 36083
 San Francisco, California 94102

Sample log of Big Hole National Battlefield Monument Well No. I,
Beaverhead County, Montana

Drilled for the National Park Service by Paul Vollmer and Son, Aberdeen,
Idaho, May 26 to June 23, 1965.

Located in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 2 S., R. 17 W.

Sample study and log by R.L. Konizeski, U.S. Geological Survey, Missoula, Montana.

<u>Material</u>	<u>Depth</u>	
	<u>From</u>	<u>To</u>
Glaciofluvial mantle of unconsolidated poorly sorted, sub-to well-rounded, light colored, iron-stained sand, gravel, and cobbles. Mostly quartzite, some granite and much muscovite mica in minute books and flakes-----	0	40
Gravel and sand, semiconsolidated, sub-rangular to subround quartzite, some mica. Lenses of gray bentonitic clay	40	55
Conglomerate, lime-cemented; subrounded gray quartzite, some fine mica-----	55	60
Gravel, semiconsolidated; subround clear quartz and white quartzite with a few granite pebbles and some mica. Interbedded lenses of gray bentonitic clay-----	60	65
Gravel, semiconsolidated; subangular light-gray quartzite-----	65	75
Conglomerate, trace of limy cement; subangular white to gray quartzite and clear quartz sand and gravel; some iron stain. Thin beds of gray bentonitic clay	75	100
Conglomerate, poorly consolidated; 90 percent light-to dull-gray quartzite, 10 percent dark-gray to brown quartzite pebbles. Some water-----	100	130
Conglomerate, well-cemented; light-gray quartzite pebbles and some mica flakes. Interbedded lenses of dark-gray, bentonitic clay-----	130	170
Conglomerate, subangular light- to dark-gray quartzite pebbles. some mica and granitic pebbles-----	170	195
Clay, brown, iron-stained, bentonitic--	195	198
Sandstone, poorly consolidated; 85 percent subangular mikly quartzite, 10 percent clear quartz. Some finely divided mica and a few thin lenses of gray bentonitic clay. Water bearing-----	198	215

Sandstone, poorly consolidate; sugary
quartzite grains and some mica flakes,
Water-bearing-----

215

245

Sand, poorly consolidated, very
fine-grained-----

245

250

Other Supporting Information

Form 10-174
(June 1962)UNIT STA DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Park Big Hole National Battlefield		Region Midwest	Work Order No. 341-211701 BHB
Location in Park Residential and Headquarters		State(s) Montana	Fund Symbol 14X1035
Contract No. 14-10-0243-613 Contract No. 14-10-0243-614 Drawing No. NM BHB 3004		County or Counties Montana	Year Programmed 1965
☒ Contract and/or ☐ Day Labor		Park Montana	PCP No. U-1-4
Work Order Title Utility System (por.), Water and Sewer (drill well, install pumps), Distribution lines and Sewage System		Master Plan No. NM BHB 3004	
DESCRIPTION OF FIXED ASSETS (For completion by employee in charge of project)		Master Plan Corrected By DCSSC (later)	
230 - UTILITY SYSTEMS		As Built Drawings By DCSSC (later)	
1. WATER SYSTEM		Date Started May 17, 1965 Well May 20, 1965 Utilities	
230 - UTILITY SYSTEMS		Date Completed July 24, 1965 Well Oct. 10, 1966 Utilities	
2. SEWER SYSTEM		TOTAL COSTS (For completion by FFO)	
		58,328.92	
		16,091.75	
Const. Contract 64,155.75 PS&S 10,264.92 74,420.67			
Contractor: Hartwell Excavating Co. P.O. Box 376 Idaho Falls, Idaho.			
TOTAL		\$ 74,420.67	

DISTRIBUTION		THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES			
No.	To	Submitted	Title:	Date:	
1	WASO	By: <i>Jon R. Larson</i>	Project Supervisor	APR 17 1968	
1	SSC	Approved	Title:	Date:	
1	Programs	By: <i>Robert R. Lovegren</i>	Acting Superintendent	APR 17 1968	
1	FFO	COSTS VERIFIED	Title:	Date:	
1	Yellowstone	BY <i>Bruce E. Neiser</i>	Regional Accountant	JUN 24 1968	

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

COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number

341-211701 EHB

Fund Symbol

14X1035

Year Programmed

1965

Park

Big Hole National Battlefield

Region

Midwest

Location in Park

Residential and Headquarters

Work Order Title

Utility System (Por.), Water and Sewer (drill well, install
pumps), distribution lines and sewage system.

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE

(1) Personal Services.....	\$	
(2) Travel.....		
(3) Contract Work..... #14-10-0243-614	64,155.75	
(4) Supplies and Materials.....		
(5) Other Direct Expenses.....		
(6) Operation of Equipment.....		
(7) Depreciation of Equipment.....		
(8) Purchase of Construction Equipment.....		
(9) Purchase of Other Accountable Equipment.....		
(10) Other Costs.....		
(11) TOTAL COST CHARGED TO FFO FUNDS.....	xxxxxxxxxx	\$ 64,155.75
OTHER COSTS:		
(12) PS&S, AP, and/or Facilitating Services @ 16 %.....	\$ 10,264.92	
(13) Inventory and Other Non-Fund Costs.....		10,264.92
(14) GROSS WORK ORDER COSTS.....	xxxxxxxxxx	\$ 74,420.67
LESS:		
(15) Residual Value of Construction Equipment on Line 8.....	\$	
(16) Other Credits.....		
(17) NET COST OF FIXED ASSETS.....	xxxxxxxxxx	\$ 74,420.67

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

Form-10-10
(Rev. 9-64)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEBig Hole National Battlefield
(Park)

Check One:

Monthly
Estimate ☐Final
Estimate ☒

UNIT PRICE CONTRACT

ESTIMATE NO. 2	FOR (Period) July 1965	DATE August 10, 1965
CONTRACT NO. 14-10-0243-013	COMPLETION DATE July 15, 1965	EXTENDED DATE
CONTRACTOR Paul Volmer & Son		ORIGINAL CONTRACT \$ 4,765.00
PROJECT Drilling of Test Well		CHANGE ORDERS \$ ---
LOCATION Proposed Headquarters, Big Hole National Battlefield		TOTAL CONTRACT \$ 4,765.00

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
1	1	Lump sum, move equipment to and from site	100%	\$250.00	\$ 250.00
2	250	Lin. Ft., Bore	250	9.00	2,250.00
3	250	Lin. Ft. 6" I. D. Casing	250	3.00	750.00
4	30	Lin. Ft., perforating casing	45	1.50	67.50
5	50	Lin. Ft., Screening & Gravel Packing	-0-		-0-
6	30	Hours, development	59	8.00	472.00
7	1	Lump sum, furnish and set test pump	1	50.00	50.00
8	40	Hours, Test pumping	27	8.00	216.00
9	5	Days, standby of equipment & crew	1	5.00	5.00
10	1	Lump sum, retinning and grouting	1	20.00	20.00
11	250	Lin. Ft. placing & removing casing	-0-		-0-
12	250	Lin. Ft. plugging abandoned bore	-0-		-0-
TOTAL, TEST WELL NO. 1					\$4,080.50

RECOMMENDED (Project Supervisor)

Charles F. Anderson

APPROVED (Contracting Officer)

J. H. Carpenter, Assistant Sup.

and Contracting Officer

DATE

8/11/65

SUMMARY

TOTAL TO DATE	\$ 4,080.50
LESS RETAINED AMOUNT	None
NET	4,080.50
LESS PREVIOUS PAYMENTS	3,875.47
LESS LIQUIDATED DAMAGES	None
DUE THIS ESTIMATE	205.03
% COMPLETED TO DATE:	74.5

(See Reverse for Distribution)

5-66

Form 10-194a
(12/61)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

UNIT PRICE CONTRACT CONTINUATION SHEET

Contract No.

16-10-0245-014

Contractor

Bartrell Construction Company

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
<u>RID SCHMIDT D. WATER SYSTEM</u>					
1.	54	Lin. Ft. 10" C.I. water pipe	45'	7.30	328.50
2.	1,951	Lin. Ft. 6" C.I. water pipe	1,951	5.10	9,950.10
3.	253	Lin. Ft. 4" cast iron water pipe	253	4.20	1,062.60
4.	91	Lin. Ft. 2" gal. Steel	101	3.00	303.00
5.	115	Lin. Ft. 1" gal. Steel	124	2.30	285.20
6.	1	En. 6" gate valve and box	1	123.00	123.00
7.	2	En. 8" gate valve and box	2	55.00	110.00
8.	3	En. 1" gate valve and box	3	40.00	120.00
9.	5	En. 4" fire hydrant	5	303.00	1,515.00
10.	5	En. fire hose haws & equipment	5	1,000.00	5,000.00
11.	Lump Sum	50,000 gal. concrete reservoir	100%	16,400.00	16,400.00
12.	Lump Sum	Hydro-Pneumatic System	100%	7,350.00	7,350.00
13.	Lump Sum	Equipment Shelter	100%	2,700.00	2,700.00
14.	1,349	Lin. Ft. power cables, control cables, cu. wire	1,349	1.45	1,956.05
15.	550	Lin. Ft. No. 14 con. cab., No. 1 Cu. Wire	634	1.10	697.40
16.	Lump Sum	Fire horn	100%	500.00	500.00
17.	3	En. push button station	3	65.00	195.00
18.	Cont. Sum	Force Account Work, July 25, 1963 and Change Order No. 4	--	1,000.00	473.70
		Change Order No. 1 (portion)	1,000	100%	<u>1,000.00</u>
		Total Bid Schedule B			50,283.55

Form 10-194a
(12/61)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

UNIT PRICE CONTRACT CONTINUATION SHEET

Contract No.
15-10-0243-014Contractor
Hartwell Engineering Company

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
		BID SCHEDULE C (REVISED), SEWER (See Change Order No. 1)			
1.	1,591	12in. Ft. 6" vitrified pipe	1,591	3.00	4,773.00
2.	30	12in. Ft. 6" C. I. soil pipe	30	6.00	180.00
3.	109	12in. Ft. 6" vitrified clay pipe	109	2.00	218.00
4.	6	12in. 4' depth manhole	6	175.00	1,050.00
5.	15	12in. Ft. manholes over 4'	15	30.00	450.00
6.	1	12in. 6,000 gal. capacity tank	1	4,200.00	4,200.00
7.	250	12in. Ft. 6" V.C.P. w/extra work	250	4.00	1,000.00
8.	1	12in. deep-sea bid	1	1,600.00	1,600.00
		Total Bid Schedule C			13,672.00
		Total Schedules A, B, and C			122,176.19
		Start Date May 20, 1965	120 Days Allowed		
		Completion Sept. 15, 1965			
		Stop Order Aug. 24, 1965			
		Resume Work Aug. 29, 1965	3 Days Allowed		
		Completion Sept. 21, 1965			
		Change Order No. 2	20 Days Allowed		
		Completion Oct. 11, 1965			
		Stop Order Sept. 27, 1965	24 Days Remain		
		Change Order No. 3	6 Days Allowed		
		Resume Work June 29, 1966	30 Days Total		
		Completion July 19, 1966			
		Stop Order July 8, 1966	11 Days Remain		
		Change Order No. 4	7 Days Allowed		
		Resume Work Oct. 5, 1966			
		Completion Date Oct. 23, 1966			
		Final Inspection and			
		Acceptance Oct. 10, 1966	12 Days Remain		
		No liquidated damages are applicable.			

NARRATIVE REPORT

Work Order 211-701-BHB (Formerly 2-WR-65B)

Contract Number 14-10-0243-613

Utility system (por.), water and sewer (drill well, install pumps), distribution lines and sewage system. Residential and Headquarter Area, Big Hole National Battlefield.

The project was accomplished by two separate contracts. First, drilling of a test well, Contract No. 14-10-0243-613, Paul Vollmer and Sons, Post Office Box 176, Aberdeen, Idaho. Second, construction of Roads and Utilities, (Schedules B, Water System and Schedule C, Sewer System), Contract No. 14-10-0243-614, Hartwell Excavating Company, Post Office Box 376, Idaho Falls, Idaho.

Plans and Specifications were prepared by the Western Office, Division of Design and Construction, San Francisco, California. Invitations for bid were issued for drilling of a test well, October 26, 1964. On the same date invitations for bid were also issued for construction of Roads and Utilities. Bids were opened at Yellowstone National Park, on December 1, 1964, the test well bids at 2:00 P.M., and Roads and Utilities at 3:00 P.M. There were three bids for drilling the test well and eight bids for construction of Roads and Utilities. Awards were made to the low bidder in both cases. Due to winter weather conditions at the project site, notice to proceed with the work was withheld until spring.

Project Activity: Contract No. 14-10-0243-614, Drilling of Test Well, Paul Vollmer and Sons. Award of this contract was made December 4, 1964 in two parts. Test Well No. 1, \$4,765.00 and Test Well No. 2, if required, \$3,255.00. The Notice to Proceed was effective May 17, 1965 for Test Well No. 1, 60 days were allowed with an expiration date of July 15, 1965. Supervision of the drilling and testing were handled by Mr. Charles W. Lane, District Geologist, Ground Water Branch, U. S. Geological Survey, Billings, Montana.

The work proceeded without incident and by memorandum June 25, 1965 Mr. Lane notified the Contracting Office that Test Well No. 1 was successfully completed and tested the week of June 21 to 25, 1965. Results obtained indicated the well would be quite satisfactory.

The second part of the contract for the second well was not required. The well was subsequently incorporated into the work of the second contract for the water system as the source of water for the new headquarters development.

Underruns and overruns of contract items were minor. The whole project underran \$674.50 the contract amount of \$4,765.00 by being completed for \$4,080.50. No changes were made in plans or specifications in the course of the work.

The construction completed a 250 ft. deep well with a 6" I.D. casing, 45 feet perforated. The quality of water and quantity are excellent for domestic use.

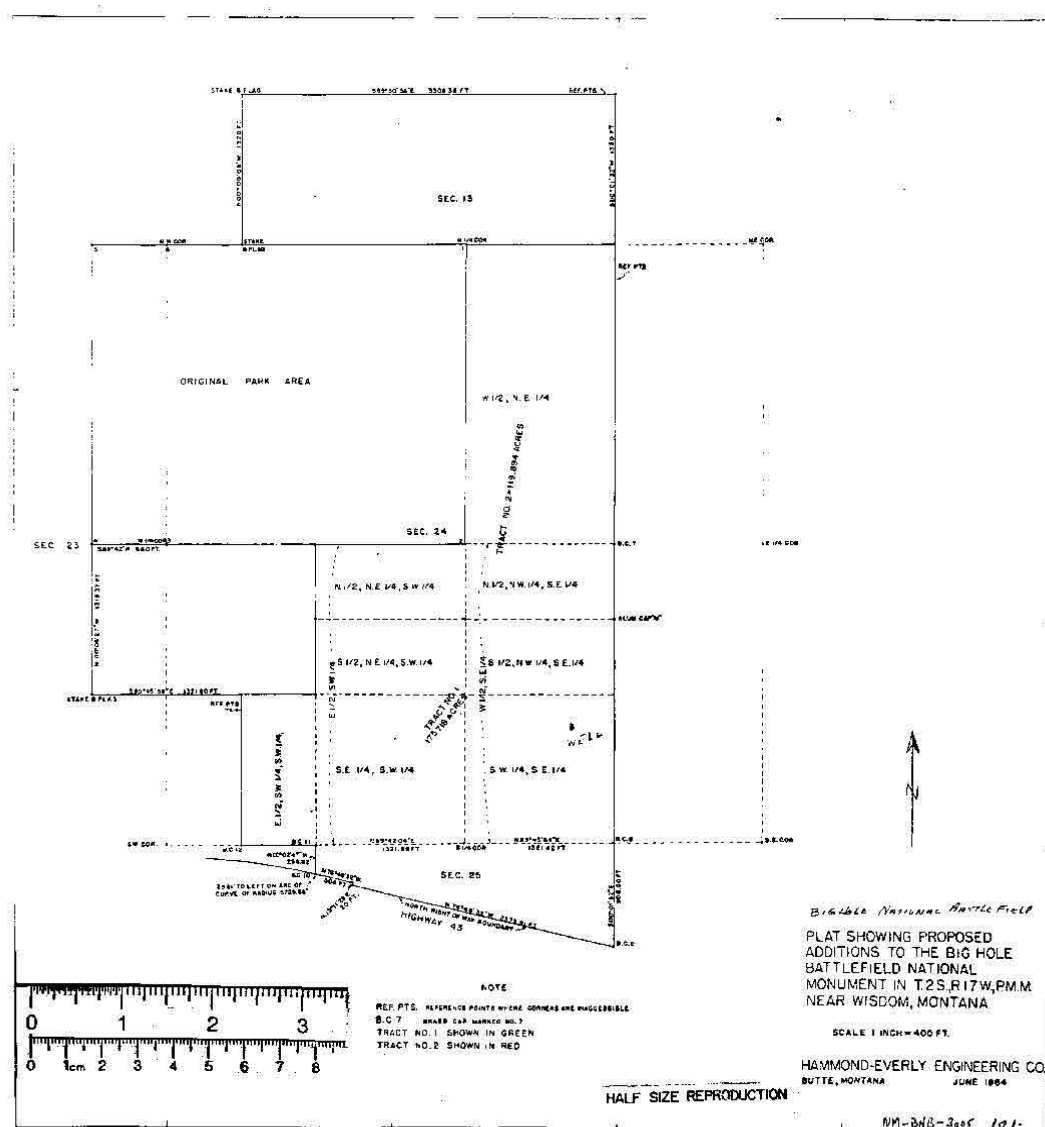
Project Activity: Contract 14-10-0243-614, Utility System, Water and Sewer, Hartwell Excavating Company, Idaho Falls, Idaho. The contract was awarded December 28, 1964, it included a Schedule for roads in addition to Schedules B, Water System and Schedule C, Sewer System. Because of existing weather conditions the Notice to Proceed was withheld until spring and the beginning date was established as May 20, 1965, with an expiration date of September 16, 1965.

The system for sewage disposal was designed for two septic tanks and leaching fields, one for the Visitor Center, Administration and Service Building and one for the residences and apartments. Soil conditions at both proposed sites were too tight for adequate percolation of the leaching field. This was changed under authority of Change Order No. 2, Item 1, to a central septic tank and leachfield to serve all of the development. This resulted in an increase in sewer construction of \$3,431.00. This has shown to be a very practical and more economical system of sewage disposal.

The water system design did not include a source of water, as the well was being drilled concurrently, and it was not known which well would be acceptable, if either. When Well No. 1 proved out in June, it was necessary to effect a change to install a pump and well head enclosure under the utility contract. This was included in Change Order No. 2, Item B and increased the contract \$1,000.00. The extremely unusual rain in August delayed the contractor, not so much on his utility work as the road work that was packaged in the same contract, that all work could not be finished and accepted that year, 1965. A Stop Order became effective September 17, 1965. Work was resumed June 20, 1966, and the contract time expired July 19, 1966. On July 8, 1966 a final inspection was made, but the Fire Pump would not perform according to specifications. A Stop Order was issued at this time until a determination could be made on the cause and remedy for the Fire Pump. It was finally determined that the approved pump which was installed was too large; a flow control valve was prescribed as a correction. This was included in the contract by Change Order No. 4 in the amount of \$600.00. A Notice to Resume Work was issued October 6 to install the flow control valve and complete the contract work. A final inspection was made October 10, 1966 when the fire pump performed in accordance

with the standards specified and all other work was complete.

These two contracts have constructed a complete sewage collection system for the new headquarters, residential area and provides adequate sewage disposal facilities. The test well became the water source, and a complete water storage and distribution system, including fire protection from a fire pump, was constructed for the new headquarters residential area. These systems should serve the development of the area for a number of years to come with adequate quality water and satisfactory sewage disposal.



Docket Information

Number of Documents in Docket 14

Documents Dated from 6/15/1964 to 4/17/1968

Docket Compiled: 1/31/2011