



WATER-RIGHT DOCKET

Salinas Pueblo Missions National Monument

Docket No: 2

QUARAI UNIT WELL

State Water Rights Documentation

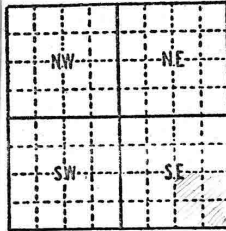
03-00-1951: well record

WELL RECORD

File No. E-314

INSTRUCTIONS: This form should be typewritten, and filed in the office of the State Engineer, P. O. Box 1079, Santa Fe, New Mexico, or in the office of the Artesian Well Supervisor, Roswell, New Mexico. Section 5 should be answered only if an old artesian well has been plugged. All other sections should be answered in full in every case, regardless of whether the well drilled is shallow or artesian in character. This report must be subscribed and sworn to before a Notary Public.

Associated with:
Quarai Division



Owner of well Punta de Agua Domestic Water Users Association

Street and Number _____

Post Office Punta de Agua, New Mexico,

Well was drilled under Permit No. E-314 and

is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 2

Township 4 North, Range 6 East

Drilling Contractor Barney Isabell

Street and Number _____

(Plat of 640 Acres)
Locate Well Accurately

Post Office Las Vegas, New Mexico

Drilling was commenced March, 19 51 Drilling was completed March, 19 51

Elevation at top of casing in feet above sea level _____

State whether well is shallow or artesian shallow

Total depth of well 400 feet. Water level upon completion of well _____ feet below land surface.

Sec. 2 PRINCIPAL WATER-BEARING STRATA

No. 1, from 139 to 142, Thickness in feet 3, Formation Hard Iron Sandstone

No. 2, from 324 to 332, Thickness in feet 8, Formation Hard Lime

No. 3, from _____ to _____, Thickness in feet _____, Formation _____

No. 4, from _____ to _____, Thickness in feet _____, Formation _____

No. 5, from _____ to _____, Thickness in feet _____, Formation _____

Sec. 3 RECORD OF CASING

Diameter in Inches	Pounds per Foot	Threads per Inch	Name of Manufacturer	Feet of Casing	Type of Shoe	Perforated		Purpose
						From	To	
7"								

Sec. 4 RECORD OF MUDDING AND CEMENTING

Diameter of Hole in Inches	Number of Sacks of Cement	Methods Used	Specific Gravity of Mud	Tons of Clay Used

Sec. 5 PLUGGING RECORD OF OLD WELL

Well is located in the _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ of Section _____, Township _____

Range _____ Name of plugging contractor _____

Street and Number _____ Post Office _____

Tons of clay used _____ Tons of roughage used _____ Type of roughage _____

_____ Was plugging approved by Artesian Well Supervisor? _____

Cement plugs were placed as follows:

No. 1 was placed at _____ feet. Number of sacks of cement used _____

No. 2 was placed at _____ feet. Number of sacks of cement used _____

No. 3 was placed at _____ feet. Number of sacks of cement used _____

No. 4 was placed at _____ feet. Number of sacks of cement used _____

No. 5 was placed at _____ feet. Number of sacks of cement used _____

(over)

Post Office _____

GENERAL CONDITIONS OF APPROVAL

- A. The maximum amount of water that may be appropriated under this permit is 3 acre feet in any period of one year.
- B. Well shall be drilled only by a driller licensed in the State of New Mexico in accordance with Section 75-11-13 New Mexico Statutes. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 75-11-13).
- C. Driller's log must be filed in office of the State Engineer within 10 days after well is drilled or driven. Failure to file log within that time shall result in automatic cancellation of the permit. Upon request of the permittee, log forms will be provided by the State Engineer.
- D. Diameter of casing limited to 7 inch outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.
- E. Any use of water from the well other than as indicated shall automatically cancel this permit unless prior approval is obtained from the State Engineer.

SPECIFIC CONDITIONS OF APPROVAL (Applicable only when so indicated on the other side of this form)

1. Depth of well in no event to exceed the thickness of the valley fill or Ogallala formation.
2. Well to be constructed to artesian well specifications and State Engineer Office to be notified before casing is landed or cemented.
3. Appropriation and use of water under this permit limited for a definite period of not to exceed one year from the date of approval.
4. Limited to household, trees, lawn and non-commercial garden not to exceed one acre and/or stock use.
5. A totalizing meter approved by the State Engineer shall be installed on the discharge line before the first branch line prior to the appropriation of water and pumping records shall be submitted to the District Supervisor (a) for each calendar month, on or before the 30th day of the following month (b) on the 10th of January, April, July and October of each year for the three preceding calendar months (c) for each calendar year on or before the 30th day of January of the following year.
6. Well to be plugged upon completion of permitted use and plugging report filed within 10 days.
7. Final approval for the use of said well dependent upon a leakage test to be made by the State Engineer Office.

GENERAL INSTRUCTIONS

Application shall be executed in triplicate and forwarded with a \$1.00 filing fee to the appropriate office of the State Engineer.

A separate application must be filed for each well to be drilled or used.

If well to be used is an existing well to be retained for uses as indicated, an explanation (and file number, if possible) should be given under Remarks. (Item 7).

Applications for appropriation, well logs and request for information in the following basins should be addressed to the State Engineer at the office indicated:

Rio Grande, Bluewater and Estancia Basins
District No. 1, 505 Marquette, N. W., Rm 1023, Albuquerque, New Mexico

Roswell, Lea, Portales, Carlsbad, Hondo, Penasco and Jal Basins
District No. 2, Box 1717, Roswell, New Mexico

Mimbres, Hot Springs, Virden Valley, Animas, Playas, Gila-San Francisco, San Simon, Lordsburg and Nutt-Hockett Basins
District No. 3, Box 844, Deming, New Mexico

APPLICATION TO APPROPRIATE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 75-11-1 NEW MEXICO STATUTES
(Three Acre Feet Per Annum)

WR-48 2-27-69

HC in SF

1. Name and Address of Applicant:

File No. RG-16410

Museum of New Mexico
P. O. Box 2087
Santa Fe, New Mexico 87501

2. Describe well location under one of the following subheadings:

a. 1/4 NE 1/4 SE 1/4 of Sec. 3 (proj) Twp. 4-N Rge. 6-E N. M. P. M., in
Torrance County.

b. Tract No. _____ of Map No. _____ of the _____ District.

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, of record in
_____ County.

d. (Describe location by direction and distance from known land marks.)

Quarai Ruins State Monument. Town of Manzano Grant.

3. Give street address or route and box No. of property upon which well is to be located, if possible:
Quarai Ruins State Monument

4. Name of driller, if known: New Mexico State Highway Dept.

5. Approximate depth of well (if known) 300 feet; outside diameter of casing 7 inches.

6. Use of water (check appropriate box or boxes):

☒ Household, trees, lawn and non-commercial garden not to exceed 1 acre.

☐ Livestock watering.

☒ Drinking and sanitary purposes or the irrigation of non-commercial trees, shrubs and lawns in conjunction with a commercial operation.

☐ Prospecting, mining or drilling operations to discover or develop natural resources.

☐ Construction of public works, highways and roads.

If any of the last three were marked, give name and nature of business under Remarks. (Item 7)

7. Remarks: Purpose of this well is for caretaker's residence and
visitor's center.

(Note: In personal communication with Bob Borton, Bill Wilder of museum stated that an estimated 150 people/day would visit monument. 8 gal/person/day plus 200 gal/day caretaker equals 1.6 AF/Yr.)

I, George H. Ewing affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Museum of New Mexico, Applicant

By: George H. Ewing

Date: February 26, 1969

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to the specific conditions numbered 5-c on the reverse side hereof. This permit will automatically expire unless this well is drilled or driven and the well record filed on or before February 15, 1970

S. E. Reynolds, State Engineer

By: James L. Williams
J.L. Williams, Supervisor, District 651

Date: February 27, 1969

Form WR-23

STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1

(Plat of 640 acres)

(A) Owner of well New Mexico State MuseumStreet and Number 113 Lincoln Avenue Santa Fe, New MexicoCity Santa Fe, New Mexico State Well was drilled under Permit No. E-1648 and is located in the1/4 NE 1/4 SE 1/4 of Section 3 Twp. 4N Rge. G3(B) Drilling Contractor N.M. State Hwy. Dept. License No. 319 WDStreet and Number P. O. Box 1149City Santa Fe State New MexicoDrilling was commenced February 26 1969Drilling was completed March 5 1969Elevation at top of casing in feet above sea level - Total depth of well 98 feetState whether well is shallow or artesian shallow Depth to water upon completion 16 feet

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1	9	21	12	Sft. Rd. S.S.
2	62.0	98.0	36	Rd. & Gry. S.S. & Clay
3				
4				
5				

Section 3

RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To
6"	18.75	none	+2	98	100	none	68	98

Section 4

RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				
			NONE		

Section 5

PLUGGING RECORD

Name of Plugging Contractor NONE License No. Street and Number City State Tons of Clay used Tons of Roughage used Type of roughage Plugging method used Date Plugged 19Plugging approved by:

Cement Plugs were placed as follows:

Basin Supervisor		
FOR USE OF STATE ENGINEER ONLY		
Date Received <u>03-01-69</u>		

No.	Depth of Plug		No. of Sacks Used
	From	To	

File No. <u>E-1648</u>	Use <u>Dom & San</u>	Location No. <u>NE 1/4 SE 1/4 3-4N-6E</u>
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LOG OF WELL

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

August 2, 1996
RE: SAPU Water Right Documentation

Dear Mr. Fulfer,

This memo is in response to our conversation of yesterday. You may recall that I work for the Water Rights Branch, which is engaged in a review of water rights documentation on file for all of the NPS administrative units. I was selected to review SAPU's documentation. Below, I've bulleted (in brief) the water right documentation we have, with associated questions:

- ▶ SAPU WATER RIGHT DOCKET 0001: *Headquarter's Well*. This is a well which is related to the Gran Quivira Unit. The well is associated with an easement deed between land owners Jack L. Kite and Louise P. Kite and the U.S. Government (the deed in our records is dated 11/5/59). The well is described as being located in the NW ¼ NE¼ SW¼ Section 4, Township 1 South, Range 8 East (which plots outside of park boundaries). The easement agreement between the Kites and the US involve a powerline, a waterline (which connects the wells water to the unit?).

Question(s): Does the unit still make use of this well?

Does SAPU have any water right records associated with this well?

Records which describe the NPS as the water right owners would be ideal.

- ▶ SAPU WATER RIGHT DOCKET 0002: *Quarai Unit Well*. This docket contains several referenced wells. The first well is described as being owned by the *Punta de Aqua Domestic Water Users Association*, and is located in the SE¼ SE¼ Section 2, Township 4 North, Range 6 East. Our records show this well as having a permit number of E-314, and a original depth of 400 feet.

Question(s): Does SAPU use this well, and is there any records in the park related to it? Records showing a change of ownership into the name of the NPS would again be the ideal...

The second well associated with the *Quarai Unit* is listed (on permit No. E-1648) is presented as being owned by the Museum of New Mexico. It is located at NE¼ SE¼ Section 3(projected), Township 4 North, Range 6 East. It was originally drilled to a depth of 300 feet. Same questions pertain to this well as with the other Quarai well described above.

You mentioned that the *Abo Unit* made use of a well. I have no documentation related to such. Please make reference to any pertinent documentation (e.g., description of well, SAPU's use of the water, water right documentation). Finally, there's the question concerning the acecia (circa the *Quarai Unit*), which, as you described, is currently under study, and therefore, resolution to my questions will best wait until the study has been concluded. The questions would be the same as listed for the above wells...does SAPU use the water, and is there a record of NPS ownership?

Let me thank you for any light you can shed on these matters. Please contact me if you need more specifics, or have any questions regarding these questions.

Thanks again,

Andrew Hautzinger
(970) 225-3531
andy_hautzinger@nps.gov

MEMORANDUM

January 14, 1969

TO: Files (Groundwater Notes, Torrance County)
FROM: R. L. Borton, Geohydrologist
SUBJECT: Water supply for Quarai State Monument

Subject area was visited January 7 by R. L. Borton and Jim Everhart of the State Engineer Office, Aubrey Willard of the Health Department, and Bill Wilder of the New Mexico Museum for the purpose of locating a water supply and sewage drainage field.

Quarai State Monument consists of 16 acres located approximately one mile southwest of the village of Punta de Agua and six miles north-northwest of Mountainair. Canyon Sapata courses eastward across the southern portion of the area, and a small hill occupies the northwestern part. The area is underlain by gently undulating red sandstone of the Abo Formation mantled by alluvium which, along Canyon Sapata, is probably no more than 15-20 feet thick. Water is present in the alluvium and has been utilized in the past by three shallow dug wells in, and immediately adjacent to, the area. A number of large cottonwood trees, willows, and a small stand of chokecherries grow along Canyon Sapata in the area, and springs emerge from the alluvium in the canyon a short distance below the Monument. Three domestic wells, located about one-half mile north of the Monument reportedly produce 3-6 gallons per minute, probably from the Abo Formation, from depths of 60-120 feet.

In view of the thin zone of saturation in the alluvium at the Monument and the proximity of the proposed location of the sewage drainage

Files

2

January 14, 1969

field to this source of water Mr. Wilder was advised to prospect for water from the Abo Formation by drilling a 200-foot exploratory well to be located on the small hill occupying the northwestern part of the Monument area.

R. L. Borton

RLB:jm

SW Notes
Torrance Co.
General

October 5, 1966

Punta de Agua Water Users Association
c/o Mr. Francis A. Baca
Route 2, Box 53
Mountainair, New Mexico

Gentlemen:

The Punta de Agua Water Users Association requested the assistance of the State Engineer Office in finding a solution to their problem of a critical domestic water shortage. All available data on the geology of the area was reviewed and a field reconnaissance was made in the company of Francis Baca of the Punta de Agua Water Users Association and Jim Kelly of the Community Action Program.

The Punta de Agua Water Users well was drilled to a depth of 400 feet in 1951 by drilling contractor Barney Isabell of Las Vegas. Mr. Isabell indicated that there are two principal water-bearing strata, "a hard iron sandstone" at a depth of 139 to 142 feet and "a hard lime" at a depth of 324 to 332 feet. Mr. Isabell indicated that the well produced $1\frac{1}{2}$ gallons per minute for a period of 16 hours. Mr. Isabell set the pump at a depth of 335 feet. Based on the log and the surface geology, it appears that the well derives its water entirely from the Abo formation.

The original production capacity (2,160 gallons per day) of the association well probably was at best sufficient to meet minimum demands on the system. Reports indicate that the yield of the well has decreased materially since it was constructed. Because of its apparently original low yield, any extensive effort to rehabilitate the well probably is not justified. A rehabilitation program could not be expected to increase the yield of the well to more than the original $1\frac{1}{2}$ gallons per minute but rehabilitation work might increase the yield somewhat over present production. One program of well rehabilitation would be as follows: 1, pull the pump and check its condition; 2, clean the well out physically with a bailer and chemically with a clay dispersant such as Calgon or Dry-De (Cotey Chemical Co., P.O. Box 1239, Lubbock, Texas; 3, investigate the possibility of resetting the pump as close to the bottom of the well as is practical; 4, determine the rehabilitated pumping capacity of the well.

The possibility of deepening the existing well was investigated. The log of an old oil test drilled in 1926 in the SW $\frac{1}{4}$, SW $\frac{1}{4}$, Section 36, Township 5 North, Range 6 East, is the best information available on the type of rock that might be encountered with depth. The correlation between the old oil test log and the log of the association's well is poor. Assuming that the correlation is approximately correct, in deepening the present well some 200 to 300 feet, mostly dense red

X-6-2
K-2371

Punta de Agua Water Users Assoc.

-2-

October 5, 1966

sandstones and shales would be encountered with an occasional 5 to 10 foot strata of limestone. It is not anticipated that deepening the well 200 to 300 feet would result in an increased yield of more than a few gallons per minute; it is probable that the well, if deepened, would not yield more than 5 gallons per minute. Also, the water produced from the deeper portion of the well likely would be of poorer quality chemically than that being presently produced.

Mr. Tabet of Mountainair stated that an old well on Tabet family property in NE, NE, SE, Section 2, Township 4 North, Range 6 East, produced 50 to 100 gallons per minute when first drilled. Mr. Tabet thought that the well was about 300 feet deep, but that most or all of the productive zones were found within 150 feet of the surface. A log for this well, which was probably drilled about 1949, has not been found. The present depth to water in the well is 60 feet. The well was plumbed to a depth of 150 feet and found to be open. If the association considers the purchasing of this well, it would be well to pump test the well to ascertain the present productive capacity of the well. If the Tabet well cannot be purchased a well site nearby might be considered. In this area, a well should be drilled through the valley fill and some 20 feet or so into the underlying Abo formation.

The Quarai Ruins area might be considered as a possible well site. Several shallow domestic wells have been drilled and dug around the ruins. The ruins are situated in an area dotted with springs. The springs probably are caused by the thinning of the unconsolidated valley fill material over the lip formed by the eastward outcropping Abo formation. Three or four domestic and stock wells have been drilled just north of the ruins; these wells reportedly have small production rates. In this area, a well should be drilled through the valley fill and some 20 feet or so into the underlying Abo formation.

If we can be of further help in this matter, please contact us.

Very truly yours,

F. G. West
Water Resources Engineer
Technical Division

FGW:mmm

cc: Robert C. Garcia
Director, CAP
Estancia, N.Mex.

Charles Caldwell
State Health Dept.
Santa Fe, N.Mex.

Docket Information

Number of Documents in Docket 11
Documents Dated from 3/15/1951 to 8/2/1996
Docket Compiled: 6/17/2011