



WATER-RIGHT DOCKET

Saguaro National Park

Docket No: 14

BAKER WELL #2

Preliminary Docket Information

05-29-1979: water right/source docket information for baker well no. 2

WATER RESOURCES/WATER RIGHT		DATE: May 29, 1979
<u>WATER RIGHT/SOURCE DOCKET INFORMATION</u>		
REGION	Western	AREA Saguaro National Monument
SITE Baker Well No. 2		
STATE	Arizona	COUNTY Pima DOCKET NO. WR#1
LOCATION SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 31, T14S, R16E, G&SRB&M		
REGIONAL BASIN	Colorado	LOCAL BASIN Santa Cruz
ACQUIRED BY (off the park appropriation)		
APPLICATION	PERMIT	CERTIFICATE
ACTION DUE	PRIORITY	RESERVATION
QUANTITY USED:	None currently (5/29/79)	USE None
STATUS	Inactive	SOURCE Groundwater (well)
REMARKS Baker Well No. 2 lies within Hydrologic Unit Basin No. 15050302.		
<u>NARRATIVE:</u>		
Saguaro National Monument consists of two separate areas, designated the Rincon Mountain Unit (the eastern portion) and the Tucson Mountain Unit (the western area). The Rincon Mountain Area was established by proclamation on March 1, 1933. The Tucson Mountain Area was similarly created on November 15, 1961. Baker Well No. 2, located approximately one mile from the Headquarters Area and outside the authorized boundaries of the Monument, was drilled in 1931 to a depth of 312 feet. (Note: The Reservation Doctrine will not apply to this source). The water level in the well varied over time, reported at 257 feet below land surface datum in 1937 and 265 feet below land surface datum in 1950. The land upon which the well was situated was purchased by the United States from the Tucson Chamber of Commerce on December 31, 1951. Baker Well No. 2 apparently did not provide water in sufficient quantity for Monument needs, as a memo dated September 1, 1961, noted that "prior to initiation of design studies for improvement of the water system of the Headquarters Area a comprehensive pumping test be made on the existing well to determine drawdown characteristics. The purpose of the test would be to provide data upon which a determination can be based as to whether or not the existing well will provide an adequate supply for the Headquarters Area." Such a test was conducted by the USGS on December 6, 1961. Due to the nature of the pump, the well was tested at only one rate. As a result, the test was deemed inconclusive and a step-drawdown test was recommended. On September 11, 1962, a step-drawdown test was conducted on Baker Well No.2 by H. H. Schumann of the USGS. He found the water level was 261.54 feet below land surface datum and the well depth was 289 feet. This decrease in depth was attributed to caving in of the well sides. After pumping at variable rates, Schumann noted high well losses, which he felt was due to the age of the well, corrosion of the well casing, and the well's small diameter. He determined the well could pump at 5gpm, but that higher pumping rates would cause collapse of the casing and destruction of the well. Thus, Schumann recommended drilling a new well in the area. In 1964, a new well was drilled in the area (see WR#6). Baker Well No. 2 is presently maintained on a standby basis. Apparently, no water right permit or license was ever filed with the State of Arizona for Baker Well No. 2, and since the area in which the well is located was not part of the original Monument reservation, the NPS water right is questionable.		
Compiled by Kevin Kidder, reviewed by Ernesto Molina Page 1 of 2		
Approved by _____		

Sagaaro National Monument -- WR#1 -- Baker Well No. 1-2? Stand-By Well

For purposes of filing for a Grandfathered Groundwater Right under the new Arizona Groundwater Act of 1980, a well must have a pump capacity in excess of 35 gpm. If a well's pump has a capacity maximum of 35 gpm and is not used for irrigation, then that well is EXEMPT from regulation in the AMA.

Baker Well #1-2? Stand-By has a maximum pump capacity of 5 gpm and is therefore exempt from regulation in the AMA...there is no need to file for a Grandfathered Groundwater Right for this well.

James H. Hershey, April 2, 1981



STATEMENT OF CLAIMANT FORM
FOR
DOMESTIC USE

For Departmental Use Only

File No. 39- 78815Date Filed: 11-2-87

WFN _____

UPPER SANTA CRUZ RIVER WATERSHED

SUPERIOR COURT OF MARICOPA COUNTY

1. Claimant Name: United States of America, National Park Service (Saguaro NM)
 Claimant Address: Western Regional Office, P.O. Bx 36063 City San Francisco
 State: Ca. Zip Code 94102 Telephone (415) 556-8660
2. Basis of Claim:
 - A. ☐ Appropriation Right acquired prior to June 12, 1919. 1974 Water Rights Registration Act Registry No. _____
 - B. ☐ Appropriation Right acquired after June 12, 1919. Application No. _____, Permit No. _____, or Certificate of Water Right No. _____
 - C. ☐ Decreed water right. Principal litigants, court, date and case no.: _____
 - D. ☒ Right to withdraw groundwater.
 - E. ☐ Other, describe: _____
3. Claimed Priority Date: March, 1931 (month/day/year)
4. Source of Water:
 - A. ☐ Stream: name _____, tributary to _____
 - B. ☐ Spring: name _____, tributary to _____
 - C. ☐ Lake or Reservoir: name _____, tributary to _____
 - D. ☒ Groundwater
5. A. Legal description of the Point of Diversion:
 County Pima, Section 31, Township 14 S, Range 16 E
 Legal Subdivision:
SW 1/4, NW 1/4, NW 1/4 of the Section
 B. Legal Description of Place of Use: (one of the following)
 County _____, Section _____, Township _____ S, Range _____ E
 _____ 1/4, _____ 1/4, _____ 1/4 of the Section, or
 Parcel I.D. _____, or
 Subdivision Name _____ Block No. _____ Lot No. _____
6. If there are Irrigation, Stockpond or Other Uses supplied from the point of diversion, describe: _____
7. Means of Diversion:
 - A. ☐ Instream pump.
 - B. ☐ Gravity flow into ditch, canal or pipeline.
 - C. ☒ Well: Arizona Department of Water Resources Well Registration No. 55- 629105 Baker Well #2
 - D. ☐ Other, describe: _____

8. Number of persons see below or dwellings _____ served by this use.
9. Annual Volume Claimed: n/a acre-feet
10. It may be necessary for a representative from the Department of Water Resources to inspect the place of use and diversion. Your signature following will grant permission to enter your property for the purpose of inspection: Signature of Claimant: _____
11. Should it be necessary for a representative of the Department to contact you as the claimant or your representative, are there any special instructions regarding time of day or address to aid in locating the specified person? Work days (415) 556-1036

12. Additional comments: Serves as backup to well #55-629106.

(attach additional sheet if required)

13. Attach Filing Fee to Form. Mail form(s) and fee(s) to: Department of Water Resources, P.O. Box 2920, Phoenix, AZ 85062.

14. Notarized Statement:

I (We), John D. Cherry, on behalf of the United States of America, the claimant(s) named in this claim, do hereby certify under penalty of perjury, that the information contained and statements made herein are to the best of my(our) knowledge and belief true, correct and complete.



My Commission Expires:

March 26, 1989

John D. Cherry 10/28/87
Subscribed and sworn to before me this 28th day of October, 1987.

Witness my hand and official seal.

Mary E. Meredith
Mary E. Meredith Notary Public

or,
Authorized Personnel of the Department of Water Resources

filed
11/2/87

SUPERIOR COURT OF MARICOPA COUNTY, ARIZONA

IN THE MATTER OF THE APPLICATION OF THE UNITED STATES OF AMERICA FOR
RESERVED AND APPROPRIATED WATER RIGHTS IN THE UPPER SANTA CRUZ RIVER
GENERAL ADJUDICATION.

I. Name and address of Applicant:

United States of America
c/o National Park Service
Western Regional Office
P.O. Box 36063
450 Golden Gate Avenue
San Francisco, CA 94102

II. The United States of America hereby claims water rights in those portions of the National Monuments described below which are encompassed by this adjudication. The United States claims reserved rights under the legislation which designates or enlarges the areas known as Saguaro National Monument and Tumacacori National Monument. The United States further claims additional water rights under state law for whatever purposes might have been added by the designation of portions of Saguaro National Monument as wilderness areas.

A. Saguaro National Monument.

1. Reserved Water Rights. (See Exhibits SAGU #1a and #1b.)

- a. Purpose. To secure favorable conditions of water flow; to preserve objects of scientific interest; to secure the benefits of wilderness; and to provide for the administration of and visitation to the monument. (Exhibits SAGU #2, #3, #4, #5, and #6.)
- b. Sources. All surface and ground water sources including rivers, perennial and intermittent streams, springs, seeps, lakes, pools, tinajas, confined and unconfined aquifers and other natural sources of water on and under lands reserved from the public domain.

c. Locations of Current Diversions and Uses on Reserved Land.

1) Legal description of the current points of diversion

- a) Kenner Well -- NW 1/4 SW 1/4 SW 1/4, Section 4, T 15S, R 16E, G&SRB&M.
- b) Manning Camp Spring -- NE 1/4 SE 1/4 SE 1/4, Section 30, T 14S, R 17E, G&SRB&M.
- c) Madrona Pack Base Well -- NW 1/4 SW 1/4 SE 1/4, Section 4, T 15S, R 17E, G&SRB&M (Registration No. 55-629099).

- d) Tucson Mountain Park Well -- SW 1/4 SW 1/4 SW 1/4, Section 34, T 13S, R 11E, G&SRB&M (Registration No. 55-629094).
 - e) North Slope-Section 25 Well -- NE 1/4 SE 1/4 NW 1/4, Section 25, T 13S, R 11E, G&SRB&M (Registration No. 55-629097).
 - f) Pictured Rocks Road-Section 7 Well -- NE 1/4 SE 1/4 NW 1/4, Section 7, T 13S, R 12E, G&SRB&M (Registration No. 55-629096).
- 2) Legal description of the current places of use. The legal descriptions listed in II.A.1.c.1) represent the places of use for the listed points of diversion.
 - 3) Current purposes of use. The current purposes of use are those identified in II.A.1.a. above.
 - 4) Water requirements. See II.A.1.e. below.
- d. Dates of Priority. (See Exhibits SAGU #1a and #1b.) July 19, 1907, for lands reserved by Presidential Proclamation No. 27 (Exhibit SAGU #2); April 29, 1929, for lands reserved by Recreational Withdrawal No. 21 (Exhibits SAGU #7 and #8); March 1, 1933, for lands reserved by Presidential Proclamation No. 2032 (Exhibit SAGU #3); November 15, 1961, for lands reserved by Presidential Proclamation No. 3439 (Exhibit SAGU #9); October 20, 1976, for lands reserved by the Act of that date (Exhibit SAGU #6); and October 21, 1976, for lands reserved by the Act of that date (Exhibit SAGU #10).
- e. Amount of Water Claimed:
- 1) Surface and ground water (non-consumptive). The United States of America claims, except as provided in subparagraphs 2) and 3) below, the right to that minimum amount of surface and ground water occurring on and under those portions of Saguaro National Monument reserved from the public domain which is necessary to fulfill the purposes described in II.A.1.a. above as follows. The government will (a) at the time of proof present evidence relating to the minimum amount of water necessary to fulfill such purposes, or (b) in the event recognized under state law, seek a decree of an unquantified reserved right, permitting a general right to enjoin users of a junior priority that may adversely affect or injure the purposes of the reservation, or to enjoin users as otherwise permitted under state law.

- 2) Quantifiable present and future administrative uses (consumptive). The United States of America claims the right to divert and use 19 AF/annum from surface and ground water sources for picnic areas, visitor centers, concessions and other visitor-use areas; park administration facilities, shop, maintenance and storage facilities, ranger stations, entrance stations, visitor contact stations, employee residences, and attendant facilities; lawns surrounding park buildings and structures and other public-use areas to offset heavy human impact; construction of roads and trails; revegetation activities; and waste water treatment facilities.
 - 3) Non-quantifiable present and future administrative uses (consumptive). The United States of America claims the right to use non-quantifiable amounts of water for controlling and suppressing wildfire and structural fires.
2. Appropriative Water Rights. The United States of America claims water rights under Arizona state law for beneficial purposes in Saguaro National Monument as follows (see certificates attached).
- a. Red Hills Section 36 Well -- Registration No. 55-629095.
 - b. Lockyer Well -- Registration No. 55-629098.
 - c. CCC Well -- Registration No. 55-629100.
 - d. Freeman Drilled Well -- Registration No. 55-629101.
 - e. Freeman Dug Well -- Registration No. 55-629102.
 - f. Genemata Well -- Registration No. 55-629103.
 - g. Old Superintendent's Well -- Registration No. 55-629104.
 - h. Baker Well #2 (Headquarters Supply Well) -- Registration No. 55-629105.
 - i. Headquarters Well No. 2 -- Registration No. 55-629106.
 - j. Greene Well -- Registration No. 55-629107.
- B. Tumacacori National Monument.
1. Appropriative Water Rights. The United States of America claims water rights under Arizona state law for beneficial purposes in Tumacacori National Monument as follows (see certificates attached).

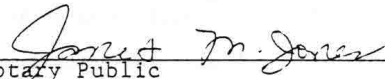
- a. Well No. 1 -- Registration No. 55-629109.
- b. Well No. 2 (Headquarters Well) -- Registration No. 55-629110.
- c. Well No. 3 -- Registration No. 55-629111.

III. Notarized Statement.

I, Patrick Barry, on behalf of the United States of America, National Park Service, the claimant named in this claim, do hereby certify under penalty of perjury, that I have read the information contained and statements made herein and to the best of my knowledge and belief they are true, correct and complete.


PATRICK BARRY
Attorney, Department of Justice

Subscribed and sworn to before me this 2nd day of November, 1987.


Notary Public

My Commission Expires:

11-12-87

DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004

REGISTRATION OF EXISTING WELLS

READ INSTRUCTIONS ON BACK OF THIS FORM BEFORE COMPLETING
PRINT OR TYPE - FILE IN DUPLICATE

Declaration: The United States gives this
jurisdiction to the State in the interest
of the State and does not concede that the
State has power to regulate the rights of
the United States to the use of water.

REGISTRATION FEE (CHECK ONE)

EXEMPT WELL (NO CHARGE) ☒

NON-EXEMPT WELL - \$10.00 ☐



FOR OFFICE USE ONLY

REGISTRATION NO. 55- 629105

FILE NO. D(14-16)3166

FILED 6-9-82 AT 1:30

(DATE) (TIME)

INA -

AMA TSN

1. Name of Registrant:

National Park Service, Western Region, Division of Water Resources

450 Golden Gate Avenue, Box 36063 San Francisco, CA 94102
(Address) (City) (State) (Zip)

2. File and/or Control Number under previous groundwater law:

35-
(File Number) (Control Number)

3. a. The well is located within the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 31,
of Township 14 S N/S, Range 16 E E/W, G & SRB & M, in the
County of Pima.

b. If in a subdivision: Name of subdivision _____
Lot No. _____, Address _____

4. The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial)
public supply, domestic, fire protection

5. If for irrigation use, number of acres irrigated from well _____

6. Owner of land on which well is located. If same as Item 1, check this box ☒

(Address) (City) (State) (Zip)

7. Well data (If data not available, write N/A)

- a. Depth of Well 289 (original depth - 312 ft.) feet
b. Diameter of casing 8 inches
c. Depth of casing 300 feet
d. Type of casing case iron
e. Maximum pump capacity not more than 35 gallons per minute.
f. Depth to water 261.54 feet below land surface.
g. Date well completed March 1931
(Month) (Day) (Year)

8. The place(s) of use of water. If same as Item 3, check this box ☐

SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 29 Township 14 S Range 16 E
1/4 $\frac{1}{4}$ $\frac{1}{4}$, Section _____ Township _____ Range _____

Saguaro National Monument (Rincon Mountain Unit) - Baker Well #2
Attach additional sheet if necessary.

9. DATE JUN 3 1982 SIGNATURE OF REGISTRANT

(Sgd) Gerard S. Witucki
GERARD S. WITUCKI
CHIEF, DIVISION OF WATER RESOURCES

CHANGE OF WELL INFORMATION

Registration Number 55 629105I request the following information be changed in Well File Number D(14-16)3166c

Date _____, 19____ Signature of Well Owner _____

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, _____, state that I am (no longer) the (new)
owner of the well described below:

Township _____ Range _____ Section _____, _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ _____ $\frac{1}{4}$

Registration #55-_____ File No. _____

Previous Owner _____ New Owner _____

Address _____ Address _____

City _____ State _____ Zip _____ City _____ State _____ Zip _____

NOTE: ARS 45-593 requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within 30 days after changes take place.

NOTE: SAVE THIS FORM TO REPORT FUTURE
CHANGES IN OWNERSHIP OR WELL
DATA SUCH AS PUMP CAPACITY, ETC.

Land History

10418

STATE OF ARIZONA)
COUNTY OF PIMA)

I hereby certify that the within instrument was filed for record in Pima County, State of Arizona

Witness my hand and Official Seal.

ANNA SULLINGER,
County Recorder

By *[Signature]*
Deputy

No. *061*
Book *425* PAGE *595*
Book *425* DOCKET Page *528*
Date: 1952 JAN 29 AM 10:46
Request of: TUCSON TITLE INSURANCE COMPANY

Indexed *[initials]* Paged *[initials]* Filmed *[initials]*

PHOTOSTATED *80¢*

Deed

For the consideration of - - - TWO THOUSAND NINE HUNDRED AND NO/100 - - - Dollars,
and other valuable considerations, ~~between~~ TUCSON CHAMBER OF COMMERCE, a corporation,

ss
do hereby CONVEY unto UNITED STATES OF AMERICA,

the following described real property situate in Pima County, Arizona:

The west half of Lot 1, Section 31, Township 14 South of Range 16 East, Gila and Salt River Base and Meridian, Pima County, Arizona, SAVE AND EXCEPT THEREFROM the north 30 feet and the west 30 feet thereof. (Lot 1 is sometimes described as the northwest quarter of the northwest quarter of Section 31, Township 14 South of Range 16 East, Gila and Salt River Base and Meridian).

SUBJECT TO taxes subsequent to the year 1951.

SUBJECT TO any charges which may be assessed against the property herein described by reason of its inclusion in the Saguaro Forest Improvement District.

IN WITNESS WHEREOF, the undersigned corporation has caused these presents to be executed by its duly authorized officers and its seal to be affixed
Witness this 31st day of December, 1951

[Signature]
Secretary
STATE OF ARIZONA)
COUNTY OF PIMA)

TUCSON CHAMBER OF COMMERCE
By *[Signature]*
President

This instrument was acknowledged before me this 26 day of January, 1952

by Munday Johnston as President and C. Edgar [unclear]
Secretary of Tucson Chamber of Commerce, a corporation

My commission expires: January 20, 1953 Notary Public

22.66 acres
1.40 County Road
NPS 21.26 acres

Saguaro NPS Deed 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service

The within deed is accepted on behalf of the United States as of April 16, 1952, under the authority contained in the Interior Department Appropriation Act, 1952 (Public Law 136, 82d Cong.), and in 16 U.S.C., 1946 ed., sec. 17j-2(g), and pursuant to authority delegated by Departmental Order No. 2640, dated June 11, 1951 (16 F. R. 5846).

David F. Lu
Acting Director
National Park Service

425-594
 COUNTY OF PIMA
 Witness my hand and Official Seal.

Indexed	Paged	Noted

ANNA SULLINGER,
 County Recorder
 Deputy

No. 400
 Book 155 DOCKET
 1952 JAN 29 AM 10:45 524

Date:
 Request of:
 TUCSON TITLE INSURANCE COMPANY

By *Anna Sullinger*
 Deputy

PHOTOSTATED Fee: 3/-55 MISCELLANEOUS

TUCSON CHAMBER OF COMMERCE
 TUCSON, ARIZONA

I, C. EDGAR GOYETTE, SECRETARY OF THE TUCSON CHAMBER OF COMMERCE, AN ARIZONA CORPORATION, HEREBY CERTIFY THAT THE FOLLOWING ACTION WAS TAKEN BY THE BOARD OF DIRECTORS OF THE TUCSON CHAMBER OF COMMERCE, AT A REGULAR MEETING OF SAID BOARD OF DIRECTORS OF THE TUCSON CHAMBER OF COMMERCE HELD AUGUST 7, 1951.

"UPON MOTION DULY SECONDED AND CARRIED BY UNANIMOUS VOTE THE PRESIDENT AND SECRETARY OF THE TUCSON CHAMBER OF COMMERCE, AN ARIZONA CORPORATION, WERE AUTHORIZED FOR AND IN BEHALF OF THE TUCSON CHAMBER OF COMMERCE, TO SIGN THE NECESSARY DEED FOR TRANSFER OF PROPERTY TO THE UNITED STATES GOVERNMENT FOR THE TWENTY (20) ACRES OF LAND NOW OWNED BY THE CHAMBER OF COMMERCE ADJACENT TO THE SAHUARO NATIONAL PARK, CONSIDERATION FOR SUCH DEED BEING IN THE SUM OF TWENTY-NINE HUNDRED DOLLARS (\$2900.00) OR MORE"

THIS MEETING OF THE BOARD OF DIRECTORS AT THEIR REGULAR MONTHLY MEETING OF AUGUST, 1951, WAS HELD TUESDAY NOON, AT THE PIONEER HOTEL IN TUCSON, ARIZONA PURSUANT TO CALL DULY MADE.

C. Edgar Goyette
 C. EDGAR GOYETTE, SECRETARY
 TUCSON CHAMBER OF COMMERCE

STATE OF ARIZONA)
) ss
 COUNTY OF PIMA)

C. EDGAR GOYETTE, BEING DULY SWORN DISPOSES AND SAYS THAT HE IS THE DULY ELECTED, QUALIFIED AND ACTING SECRETARY OF THE TUCSON CHAMBER OF COMMERCE, AN ARIZONA CORPORATION, AND THAT HE HAS READ AND IS FAMILIAR WITH THE CONTENTS OF THE FOREGOING CERTIFICATION, AND THAT SAID CERTIFICATION WAS ADOPTED AND APPROVED BY THE BOARD OF DIRECTORS AS STATED.

C. Edgar Goyette

SUBSCRIBED AND SWORN BEFORE ME THIS 15 DAY OF DECEMBER, 1951.

My Commission Expires January 20, 1953
 NOTARY PUBLIC

"In The Sunshine City"



To all to Whom these Presents shall Come, Greeting:

I, MEL D. MICHAEL, SECRETARY OF THE ARIZONA CORPORATION COMMISSION, DO HEREBY CERTIFY THAT the TUCSON CHAMBER OF COMMERCE having made its filings as provided by law, was on the 5th day of April A. D. 1934, issued a Certificate of Incorporation as a domestic corporation created and existing under and by virtue of the laws of the State of Arizona; that said company is a NON-PROFIT corporation and that it is now a duly authorized and existing corporation in good standing.

IN WITNESS WHEREOF, I HAVE HEREUNTO
SET MY HAND AND AFFIXED THE OFFICIAL SEAL
OF THE ARIZONA CORPORATION COMMISSION, AT
THE CAPITOL, IN THE CITY OF PHOENIX, THIS 17th
DAY OF December A. D. 1951

BY

SECRETARY,

ASSISTANT SECRETARY

REPORT ON
PRESENT POSSESSORY RIGHTS
(Short Form)

Tract No. 51-7 Owner Tucson Chamber of Commerce Contract No. 1-100ap-419

1. (a) If occupied, name of occupant of premises:

None

(b) Nature of occupant's right to possession:

2. (a) Evidence of recent building construction:

None

(b) Outstanding recorded mechanic's, laborer's or materialmen's liens:

None

3. Do the physical boundaries of the property conform generally with the description in the deed of conveyance? Yes

4. (a) If the property is affected by any easement, the nature of such easement: A thirty foot strip across the north and west sides of property previously deeded to Pima County, Arizona, for public highway.

(b) Public or private? Public

If private, the names of those entitled to enjoy same: _____

(c) Are there any administrative objections to the acceptance of title subject to these easements?

No

5. Other reasons, if any, together with full explanations, why the United States is not entitled to unrestricted possession of the property upon acceptance of title:

Signed

Samuel A. King
Superintendent

Date February 15, 1950

x

- 1 -
August 17, 1951

Regional Director
Region 3
National Park Service
Box 1728
Santa Fe, New Mexico.

Dear Sir:

In accordance with Purchase Order No. SAQ-6 August 2, 1951 Saguaro National Monument, Tucson, Arizona, I submit herewith the following appraisal.

RECORD OWNER

Tucson Chamber of Commerce by Deed dated June 15, 1939 and recorded June 19, 1939 in Book 222 at Page 74 in Deeds of Real Estate in the office of the County Recorder, Pima County, Arizona.

LEGAL DESCRIPTION

West half of northwest quarter of northwest quarter, Section 31, Township 14 South, Range 16 East, Gila and Salt River BLM, Pima County, Arizona, containing 20 acres.

ROADS

This property faces on Houghton Road, a well graded highway leading into Tucson.

LOCATION

This property lies 7/8 of a mile west of the Saguaro National Monument headquarters.

WATER POSSIBILITIES

This property has an 8 inch cased well 310 feet deep. A log of the well made June 3, 1950 by Mr. Carl Pistor showed the water level to be at 265 feet. A test was made at that time pumping 5.1 gallons per minute. The test showed a good supply of water and a constant recovery.

-2-

GENERAL CONTOUR

Gentley sloping and uneven.

DESERT FLORA

The property is mostly covered by Pale Verde and various forms of native cacti and desert growth.

GRAZING POSSIBILITIES

This type of land is not desirable or profitable for grazing as there is a limited supply of sustaining vegetation for animals.

RESIDENTIAL POSSIBILITIES

This district has a few scattered country homes and having a sufficient water supply is very salable.

FORMER SALES

Revenue stamps on a Deed recorded 3/31/49 shows that 159 plus acres were sold in the northeast quarter of Section 10, Township 14 South, Range 16 East, G. & S.R. B&M., for about \$85.00 per acre. Records indicate that in July 1945, approximately 475 acres in Sections 10 and 15 was purchased by Nelson Garwood for \$6,000.00 (Revenue stamps \$6.60). I am led to believe that it was undeveloped at that time.

QUALIFYING CONDITIONS

I have not now, nor ever have had, any interest in the property appraised. My employment is not contingent upon the amount of value reported.

APPRAISAL

Considering the desirability of this property and the known water supply, it is your appraiser's opinion that a reasonable market value is as follows;

Windmill and Jack Pump	\$ 150.00
310' 8" cased well @ \$4.50	1,395.00
20 acres @ \$75.00	1,500.00
	\$3,045.00

LIMITING CONDITIONS

No responsibility is assumed by the appraiser for matters which are legal in nature, nor is any opinion on the title rendered herewith. The appraisal assumes good faith.

-2-

Any liens or encumbrances which may now exist have been disregarded, and the property has been appraised as though free of indebtedness and as though no delinquency in the payment of general taxes or special assessments exists.


Oscar W. Davis Appraiser

STATE OF ARIZONA }
COUNTY OF PIMA } ss:

The above instrument was acknowledged before
me this _____ day of August, 1951.


Notary Public

My commission expires:

Feb 19, 1954



Supporting Hydro Data

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Ground Water Branch
P.O. Box 4070
Tucson, Arizona

August 15, 1963

Mr. George W. Miller
Region 3, National Park Service
Acting Regional Director
P. O. Box 1728
Santa Fe, New Mexico

RE: Results of production test, R. H. M. Baker well 2 in Saguaro
National Monument

Dear Mr. Miller:

The results are enclosed in the form of an administrative report,
which is for your immediate needs only and not for public release.
After approval we will send you a revised copy for your files.

Sincerely yours,

/s/ E. S. DAVIDSON

E. S. Davidson
Acting District Geologist

Enclosure

cc: Superintendent, Saguaro National Monument - w/ copy of report
Division Hydrologist, Denver, Colorado
Branch Area Chief, Denver, Colorado

COPY

reid w/memo
5/14/65
↑

United States
Department of the Interior
Geological Survey

Evaluation of production test,
Saguaro National Monument, Arizona

By

H. H. Schumann

Administrative report
For U. S. Government Use Only

Prepared in cooperation with the
National Park Service

Tucson, Arizona
August 1963

COPY

EVALUATION OF PRODUCTION TEST,
SAGUARO NATIONAL MONUMENT, ARIZONA

By

H. H. Schumann

A pumping test of R. H. M. Baker well 2---in the W 1/2NW 1/4 sec. 13, T. 14 S., R. 16 E., Gila and Salt River meridian and base line---was made on September 11, 1962, at the request of Mr. Dyer, chief ranger, Saguaro National Monument, and under the direction of H. H. Schumann, geologist, U. S. Geological Survey, Ground Water Branch. The purpose of this test was to determine the maximum productivity of the well and to make a further evaluation of the aquifer penetrated by the well. (See administrative report, "Evaluation of Pumping-Test Data---Saguaro National Monument, Arizona, "by S. G. Brown, 1962.)

The pump was turned off at 9:15 a.m., September 9, 1962, to permit the water level to stabilize before beginning the production test. Periodic measurements of the depth to water were made in the well during the period of recovery. At 9:15 a.m., September 11, the depth to water below the top of the casing was 261.54 feet, and at 1:30 p.m., September 11, the depth to water was still 261.54 feet---indicating that the water level in the well had stabilized.

The pumping test began at 1:40 p.m., September 11, and continued until 7:30 a.m., September 12. The depth to water in the well was measured at regular intervals during the several periods of

COPY

pumping and recovery. Discharge measurements were made with a Sparling flowmeter connected to the discharge pipe. These measurements were checked periodically by volumetric measurement of the discharge in a tub of 2 cubic-feet capacity. When pumping began at 1:40 p.m., September 11, discharge was adjusted as quickly as possible to pump at a constant rate of 3 gpm (gallons per minute). Pumping was continued at this rate until 7:03 p.m. when the maximum drawdown of 3.80 feet was measured and the pump was turned off. Water-level measurements were made periodically during the period of recovery until 9:13 p.m., September 11, when the depth to water was measured at 263.54 feet below the top of the casing.

Pumping was started at 9:15 p.m. at a rate of 6 gpm and continued until 9:35 p.m. when mechanical failure caused the pump to stop. Water levels in the well were allowed to recover until 12:05 a.m., September 12, when the depth to water in the well was measured at 261.73 feet below the top of the casing.

Pumping was started again at 12:05 a.m., September 12, at the rate of 6 gpm and continued until 4:43 a.m. Depth to water was measured at regular intervals during the period of pumping. A maximum drawdown of 14.64 feet was measured at 4:30 a.m.

The pumping rate was increased to 9 gpm at 4:43 a.m. and continued until 4:46 a.m. when the pump broke suction. By 4:49 a.m. the discharge had completely stopped and the pump was turned off. The water level measured just before the pump was turned off was 286.58 feet below the top of the casing. The water level in the well was measured periodically until 6:54 a.m. when the water level had

recovered to 262.53 feet below the top of the casing.

Pumping at the average rate of 10 gpm began at 6:54 a.m., September 12, and continued until 7:00 when the pump began sucking air and the discharge began fluctuating. The depth to water was measured at 284.25 feet below the top of the casing at 7:03 a.m. and the pump was turned off. The water level was measured periodically until 7:30 a.m. when the water level had recovered to 262.57 feet below the top of the casing.

Several previously unknown characteristics of the well were brought to light by this test. On December 6, 1961, a test was conducted on the well indicating a maximum drawdown of 4.35 feet after pumping at an average rate of 2.82 gpm for 4 hours. This indicated a specific capacity of 0.65 gpm per foot of drawdown.

The first part of the test conducted on September 11, 1962, resulted in a drawdown of 3.80 feet after pumping at an average rate of 3.0 gpm for 5 hours and 23 minutes. This indicates a specific capacity of 0.79 gpm per foot of drawdown.

The specific capacity of 0.79 gpm per foot of drawdown obtained from the second test was 0.14 gpm per foot of drawdown higher than the specific capacity of 0.65 gpm per foot of drawdown obtained from the first test. A possible explanation of this difference is that during the early part of the second test the well was pumped at rates considerably greater than 3 gpm before the discharge could be regulated to the desired constant rate of 3 gpm. Sediment was observed in the water discharged during this period. The presence of sediment indicates that the well was developed slightly during the period of initially high

discharge.

The second part of the test conducted on September 11, 1962, indicated a maximum drawdown of 14.63 feet after pumping at the rate of 6 gpm for 4 hours and 23 minutes. This indicates a specific capacity of 0.41 gpm per foot of drawdown.

Although specific capacity decreases with an increase in pumping rate, the relatively large percentage difference in specific capacities shown by this test indicates a considerably higher well loss than would be expected normally. The specific capacity of 0.41 gpm per foot of drawdown obtained by pumping at 6 gpm is only 51 percent of the specific capacity of 0.79 gpm per foot of drawdown obtained by pumping at 3 gpm.

High well losses indicated in this well may be explained by the fact that the well was drilled in the early 1930's, and because of age the casing may be corroded, the perforations may be partly clogged, and it also may have a considerable amount of incrustation. The resulting clogged perforations would be smaller and the well yield would be reduced. Under ordinary conditions, steel casing should last 15 to 20 years.

Another factor to be considered is the relatively small diameter of the well. Due to the small diameter of this well and the poor condition of the casing, it is believed that enlargement and rehabilitation of this well would be at least as costly as drilling a new well. A larger diameter well of proper construction probably would yield larger amounts of water in this area.

The tested well was drilled to a depth of 312 feet, according

to the driller's log. The well was sounded just prior to the installation of the test pump and found to be 289 feet deep, indicating the lower 23 feet of the well may have filled in, or the casing collapsed.

In summary, the production test conducted on this well shows the well to be of limited capacity. The test confirms the results of the earlier test (Brown, 1962), indicating this well can be pumped for extended periods at the rate of 3 gpm; however, the test indicates the well can be pumped for a period of about 7.5 hours at a rate of 6 gpm before reaching a pumping level of 280 feet below the top of the casing. When the pumping rate was increased to 9 gpm near the end of the test the pump broke suction after only 3 minutes. Therefore, the well can be pumped at rates greater than 3 gpm but less than 6 gpm for extended periods of time. The test conducted on September 11, 1962, indicates that the well could probably be pumped at a maximum rate of 5 gpm for extended periods of time. Pumping at rates of ~~more~~ than 5 gpm is not recommended because of the danger of collapsing the old casing, which would result in destruction of the well and loss of the installation's only existing water supply.

In the light of the limited capacity, the generally poor condition of the casing, the small well diameter, and the partially filled condition of the existing well, it is suggested that a new well be drilled to insure an adequate and reliable water supply for the installation. The existing well then could be used as an auxiliary supply. Any expansion of the park facilities will require a second well to meet the additional water requirements of the installation.

The new well site should be selected by a geologist after making

a geologic reconnaissance of the area, evaluating existing well data, and consulting with the Saguaro National Monument officials regarding the extent of existing land controlled by the Monument and the possibility of acquiring additional land for the new well site. The drilling should be supervised by the geologist and samples should be taken at intervals of not less than 10 feet and at every change in formation. The well should be constructed in accordance with the evaluation of geologic and hydrologic conditions observed during the drilling. The completed well should not be less than 8 inches in diameter. This minimum diameter would allow for deepening the well, if geologic conditions permit, in the event of increased pumping lifts caused by regional water-level declines.

COPY

Region Three
Santa Fe, New Mexico

194
Sagu

JAN 4 - 1962

Mr. F. Eldon Dennis
District Geologist
Ground Water Branch
P. O. Box 4070
Tucson, Arizona

Dear Mr. Dennis:

We have your memorandum of December 19 transmitting the results of the pumping test on the R.H.M. Baker Well No. 2, Saguaro National Monument.

We are in accord with your suggestion that we should proceed with a step-drawdown test using a pump of larger capacity. We think, however, that we should postpone the second test at least until we have had an opportunity to consult with the new superintendent.

As you are probably aware, Superintendent John O. Cook is being transferred and a new superintendent will probably not report for duty until sometime near the middle of February. We prefer to wait until the new superintendent has reported for duty before we proceed with the second phase. We would like for a representative of this office to discuss the possibility of a second standby well if you believe such a well could be drilled on the Park Service 20-acre tract.

We will write you again on this matter or have a representative meet with you and the new superintendent at some later mutually convenient date.

Sincerely yours,

RECORDED

George W. Miller
Assistant Regional Director

Copy to: Director (2) w/copy incoming
Chief, WODC (2) w/copy incoming
Supt., Saguaro

Western Office Design & Construction	
DATE:	1/8/62
CHIEF	
ADMIN. ASSIST.	
PERSONNEL	
PLANS & PROG.	
SAFETY	
ARCHITECT	
ENGINEER	
LAND ARCH.	
1 Marked 1/15	
1 Marked 1/18	
Action Taken—Date	



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Ground Water Branch
P. O. Box 4070
Tucson, Arizona

NPS REGION THREE OFFICE	
DEC 21 1961	
IN REPLY REFER TO:	
	SURNAME DATE
REG. DIR.	
ASST. DIR.	
ADMIN.	
OPERATIONS	Jan 12/61
RANGER ACT.	
INSTR.	
RECORDS	
TRAINING	
RESEARCH	
GEOL.	
PLANT	
ANIM.	
ARCH.	
LIB.	
CLERK	

December 19, 1961

Mr. George W. Miller
Acting Regional Director
Region 3, National Park Service
P. O. Box 1728
Santa Fe, New Mexico

Re: Results of pumping test on Baker Well 2 on Saguaro National Monument

Dear Sir:

Phase 1 of the investigation on the Saguaro National Monument as requested in your memorandum of September 29, 1961, has been completed. The results are enclosed in the form of an administrative report, which is for your immediate needs only and not for public release.

You will be pleased to learn that the well is capable of producing considerably more water; how much more can be determined only by making a step-drawdown test using a pump of larger capacity. You may wish to get a larger pump and make the test right away or you may wish to wait until after the heavy winter travel season. We will be happy to fit in with your plans either way.

The results of our work for you will be incorporated in our report on the broader study of ground water in the Tucson area now underway.

I think it would be worth your while to discuss with us the possibilities of a second standby well which may be needed by the monument in the future.

Very truly yours,

Phillip W. Johnson
for P. Eldon Dennis
District Geologist

Attachment

cc: Superintendent, Saguaro National Monument
Branch Area Chief, Denver

L. S. Sanguino

COPY

United States
Department of the Interior
Geological Survey

Evaluation of pumping-test data---Saguaro
National Monument, Arizona

By

S. G. Brown

Prepared in cooperation with the
National Park Service

Administrative report
For U. S. Government Use Only

Tucson, Arizona
December 1961

COPY

EVALUATION OF PUMPING-TEST DATA - SAGUARO
NATIONAL MONUMENT, ARIZONA

By

S. G. Brown

On December 3, 1961, arrangements for a pumping test of R.H.M. Baker well 2 were completed between Mr. Cammack, acting superintendent, Saguaro National Monument and S. G. Brown, hydraulic engineer, U. S. Geological Survey, Ground Water Branch.

The pump was shut off at 3:00 p.m., December 4, 1961. The depth to water in the well was measured periodically during the period of recovery. At 2:05 p.m., December 5, 1961, the depth to water below the top of the well casing was 262.0 feet, and at 8:15 a.m., December 6, the depth was 262.0 feet.

Test pumping of the well began at 8:15 a.m., December 6, and continued until 12:15 p.m. During the period of pumping, depth to water was measured at regular intervals. Discharge was measured volumetrically in a 2-cubic-foot tub and averaged 2.82 gpm (gallons per minute) for the period of the test. The maximum drawdown measured was 4.35 feet at 12:15 p.m., just before the pump was shut off. The water level in the well was measured periodically until 2:30 p.m. At this time, the water had recovered to a level of 262.05 feet below

COPY

the top of the casing, or 0.05 feet below the static level measured before pumping began. Attached is a graphical record of the drawdown and recovery curves based on the measurements obtained during this test.

The driller's log of the well furnished by the National Park Service reports a sand and gravel layer between 271 and 279 feet below the land surface. Most of the water pumped from the well probably comes from this zone. Further analysis of the data from this test indicates that the well could be pumped at higher rates. Because it was possible to operate only at one discharge rate, the magnitude of the drawdown at increased discharge rates cannot be accurately estimated. The well reportedly was tested in June 1950 and had a maximum discharge of 13 gpm for 7 hours of pumping with a drawdown of 18 feet below the static water level.

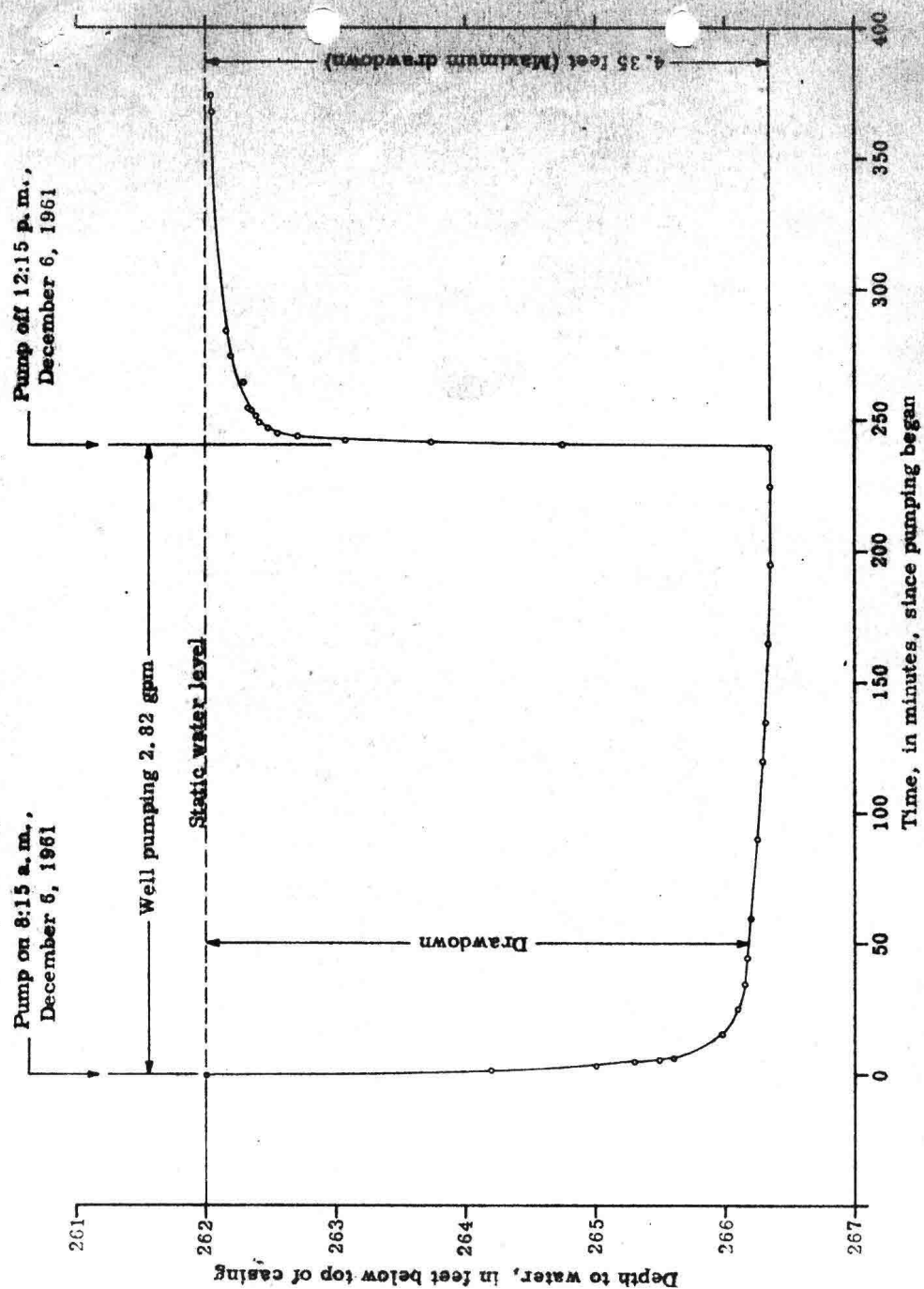
It is not known what the water level in the well was at the time of the June 1950 test. It is reported that the water level was 257 feet below the land surface in 1937. Assuming there was a total drawdown of 18 feet after pumping 13 gpm from the well for 7 hours, the water level would have declined below the top of the sand and gravel stratum which, according to the driller's log, is at 271 feet. Therefore, even though it is believed the well is capable of yielding more than it now produces, the optimum amount of the increase would have to be determined by running a step-drawdown test in which the drawdown

COPY

is measured at different rates of pumping. This would more definitely evaluate the potential of the water-bearing zone and the optimum amount of water that can be pumped from the well.

The driller reported "granite" at a depth of 295 feet below the land surface at the well site. Geologic work in the area indicates that bedrock is at shallower depths to the east of the present well site and at the surface along the mountain front. Wells near the Saguaro National Monument drilled into the alluvium overlying the bedrock yield only small amounts of water. Drilling into the bedrock would yield little or no additional water. To insure a long-term water supply for the monument, prospecting should be done for an additional well in the area between the present well site and Pantano Wash.

In summary the test indicates that the present well can be pumped at about 6 gpm, or a little more than double the amount now being pumped. Whether or not the well can be pumped for long periods at a rate substantially greater than this can be determined by installing a pump of larger capacity and making a step-drawdown test.



Water levels in R.H.M. Baker well 2, Saguaro National Monument, Arizona, during test of well on December 6, 1961

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

In reply refer to:
D5039 SAGU

June 14, 1950

Memorandum

To: Director

From: Acting Associate Regional Director

Subject: Pump test of well on land of Tucson Chamber of Commerce,
Saguaro National Monument

Mr. Demaray's memorandum of June 1 has to do with the test on a well at Saguaro National Monument. The one and one-half hour test mentioned in my memorandum of May 18 was a report on a preliminary test run in advance of the main test.

There is enclosed copy of report of the pump test conducted by Mr. Carl W. Pistor which shows two pump runs, one of eight hours and one of four hours with the pump operating at its full capacity of 5.1 gallons per minute. It is evident from this report that no record was made of the draw-down of the well at this pumping rate and that no record of the length of time between the two runs was recorded. Both of these figures are essential to determine the ultimate capacity of the well but it is evident from Mr. Pistor's report that we can depend upon the continuous delivery of 5.1 gallons per minute.

Will you please review the report of the test as submitted by Mr. Pistor and advise us if you wish to have the test rerun and the draw-down recorded at various periods during the length of the test.

There is also enclosed copy of Superintendent King's memorandum of June 10.

/s/ John M. Davis
John M. Davis
Acting Associate Regional Director

Attachments 2

Copy to: Superintendent, Saguaro

C
O
P
Y

CARL W. PISTOR

Mail Address: 337 E. Speedway
Shop: So. 4th Ave. and 25th St.
Tucson, Arizona

June 2, 1950

REPORT OF PUMP TEST - SAGUARO NATIONAL MONUMENT

On May 10th we installed temporary pump in 6" well located one mile west of Cactus Forest Office.

Well 8" OD part way - 6" OD at bottom section.

Water level 265'; total depth of well 310'.

Pump used was 6" stroke Crane Co. jack, operating at 55 strokes per mi.

Cylinder 2 $\frac{1}{2}$ ", Column pipe 2 $\frac{1}{2}$ ", pump rods No. 1 Airtite.

Capacity 5.10 gals. per min.

First Run: pump operated eight hours engine stopped.

Second Run: pump operated four hours then pump was shut down.

0 - 3 hours water was sandy then cleared and pump 5.10 gals. per min. during total time of operating.

Remark: This well will produce this amount of water continuously.

/sgd/ Carl W. Pistor

CARL W. PISTOR

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Saguaro National Monument
Tucson, Arizona

June 10, 1950

MEMORANDUM

To: General Superintendent
From: Superintendent, Saguaro
Subject: Test of well on land of Tucson Chamber of Commerce

The report referred to in Mr. Lassiter's memorandum of June 6, concerned a preliminary test of the well on the Tucson Chamber of Commerce property. This report was transmitted to the Regional Office for informational purposes and was not intended as final.

Subsequently a regular test was accomplished by Mr. Pistor over a total period of twelve hours. The result of the test indicates a good supply of water can be obtained at a sustained flow of 5.10 gallons per minute. Mr. Pistor's report of the test was forwarded to your office on June 3, but apparently was not received. If you do not receive it within a few days, please inform me and I will endeavor to secure new copies as quickly as possible.

/sgd/ Samuel A. King

Samuel A. King
Superintendent

REC'D DEC 13 1937

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
~~STATE PARK DIVISION~~
~~Seguere Forest State Park~~
SP-11-A
Tucson, Arizona
November 5, 1937

Mr. J. H. Heile, Jr.
Inspector CCC,
U. S. Federal Bldg.
Phoenix, Arizona

Dear Mr. Heile:

The test of the R.H.M. Baker well was run Nov. 4th and 5th.

The draw-downs in feet from the original water level, caused by different rates of pumping, are shown on the attached graph, in order to indicate the capacity and performance of the well.

It is likely that the maximum capacity of this well is around 20 gallons per minute at the present time.

Since the test was made after a six week drought, it is thought that safe conclusions may be drawn.

It is the writer's opinion that the well would provide enough for the Administrative Area of the Saguaro Forest State Park or Saguaro National Monument, and in addition, if so desired, enough for the future needs of the University of Arizona Observatory, whose proposed location is 1.4 miles north of the well. The former requirements are estimated at 6 gallons per minute, the latter at 3 gallons per minute.

Chemical and bacteriological analyses of the water will be reported as soon as they can be completed.

Yours truly,

W. C. Burnham
Project Superintendent

4-

Office of Project Superintendent
Saguaro Forest State Park
SP-11-A
Tucson, Arizona
November 6, 1937

ANALYSIS OF WATER FROM
R.H.M. BAKER WELL
SECT. 31 T14S R16E

	Parts per million
Total soluble salts	238
Calcium (Ca)	Trace
Magnesium (Mg)	"
Sodium (Na)	83
Chlorides (Cl)	20
Sulfates (SO ₄)	10
Carbonates (CO ₃)	0
Bicarbonates (HCO ₃)	175
Nitrates (NO ₃)	---

Remarks: This water is remarkably soft and pure.

The well had been unused for some 6½ years. The sample was taken after 12 hours of pumping had cleared the water of clay and sand.

BACTERIOLOGICAL EXAMINATION
OF WATER

From The Randall H.M. Baker Well 11/10/1937
(By the Arizona, State Laboratory)

The first two samples were found to be rather unsatisfactory.

Additional samples were submitted and again evidences of pollution were obtained.

As there are no apparent sources of pollution for miles around, and the well is very deep and well shielded by clay strata from contamination, it is probable that the pollution was introduced by the pumping machinery, or a small animal dropping in the well.

Thorough chlorination and pumping should clear the pollution.

The necessary removal by the contractor, of the pumping machinery, made necessary the postponement of further bacteriological tests.

Description of Test
Of the R.H.M. Baker Well
In Section 31 T14S R16E

Original depth of well (from log)	312 ft.
Measured depth of well	289 ft.
Diameter of casing	8 inches
Length of casing (from log)	300 ft.

Rate of pumping

13 gal. per minute for 7 hrs.	5460 gal.
15 " " " " 8 " "	7050 "
20 " " " " 2 " "	<u>2400 "</u>

Total Amount Pumped 15510 gal.

A deep well pump with 3½ cylinder and 4" suction pipe and operated by a 5 H.P. gasoline engine, was installed at a depth of 283.5 feet and 5.5 feet above the bottom of the well.

An electric measuring device was arranged to keep a check on the changing water level.

The maximum capacity of the well remained at 13 gallons per minute for 7 hours until clay ceased appearing with the sand in the discharged water.

After 15½ hours of continuous pumping had cleaned the well of fine sand, as well as clay, the capacity increased rapidly to the maximum obtainable with the available power plant.

The deep well pump broke down before draw-downs could be measured at small pumping rates. However the essential information had already been obtained.

This 312 ft. well, bottoming in rock, was found to be 289 ft. deep at the present time, there undoubtedly being 23 feet of sediment at the bottom.

The attached log indicated that cleaning out of this sediment would probably not increase the capacity of the well, though it would increase considerably the intervals between necessary clean outs.

The contractor was the Carl W. Pistor Drilling Co., of Tucson, Arizona.

The Nation Park Service observers were:-

Mr. F. B. Pacheco, Engineer, Camp SP-11-A

Mr. Geo. W. Goulden, Jr. Asst. to Technican, Camp SP- 11 -A

Mr. W. A. Burnham, Project Superintendent, Camp SP-11-A

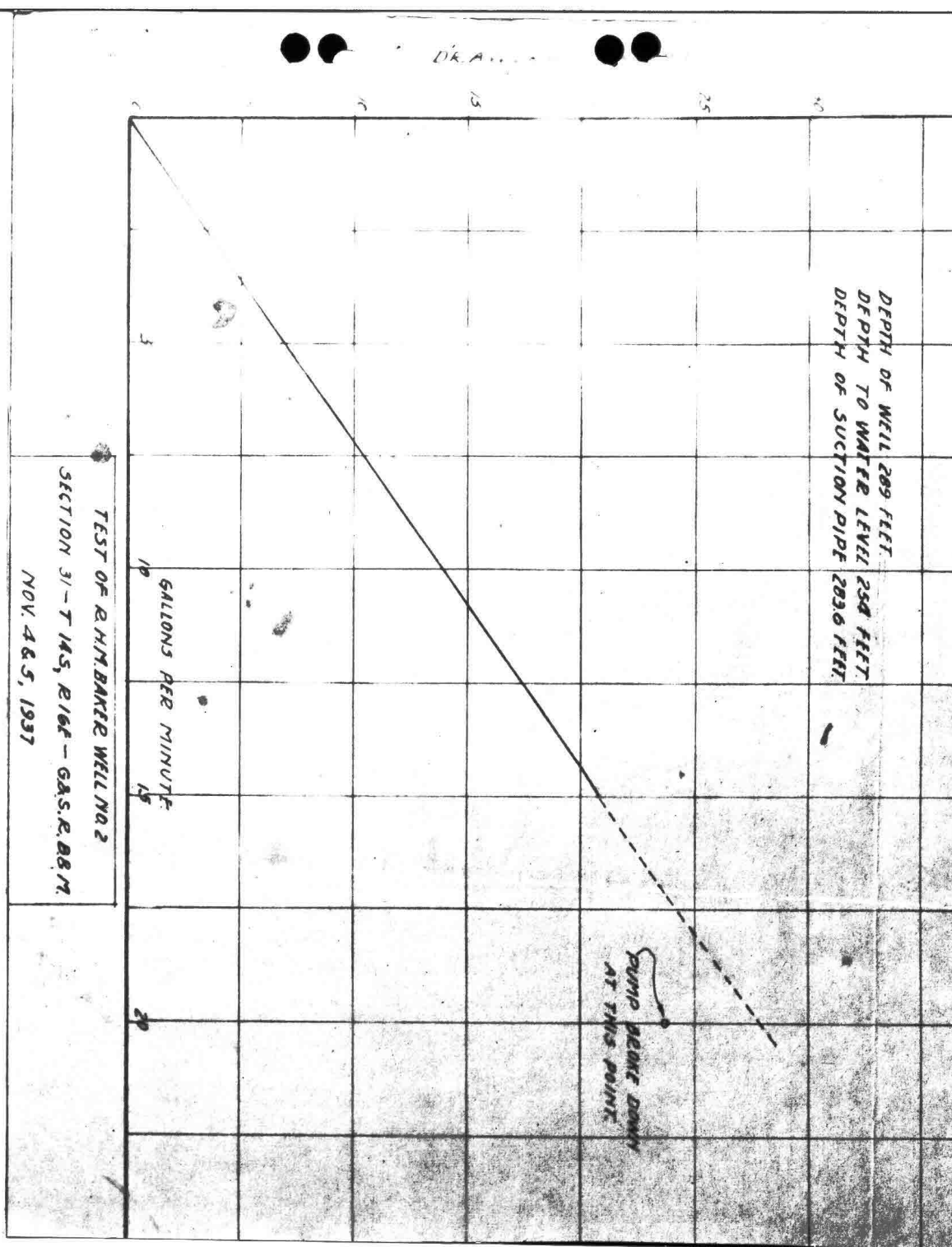
W. A. Burnham
Project Superintendent
Camp SP-11-A

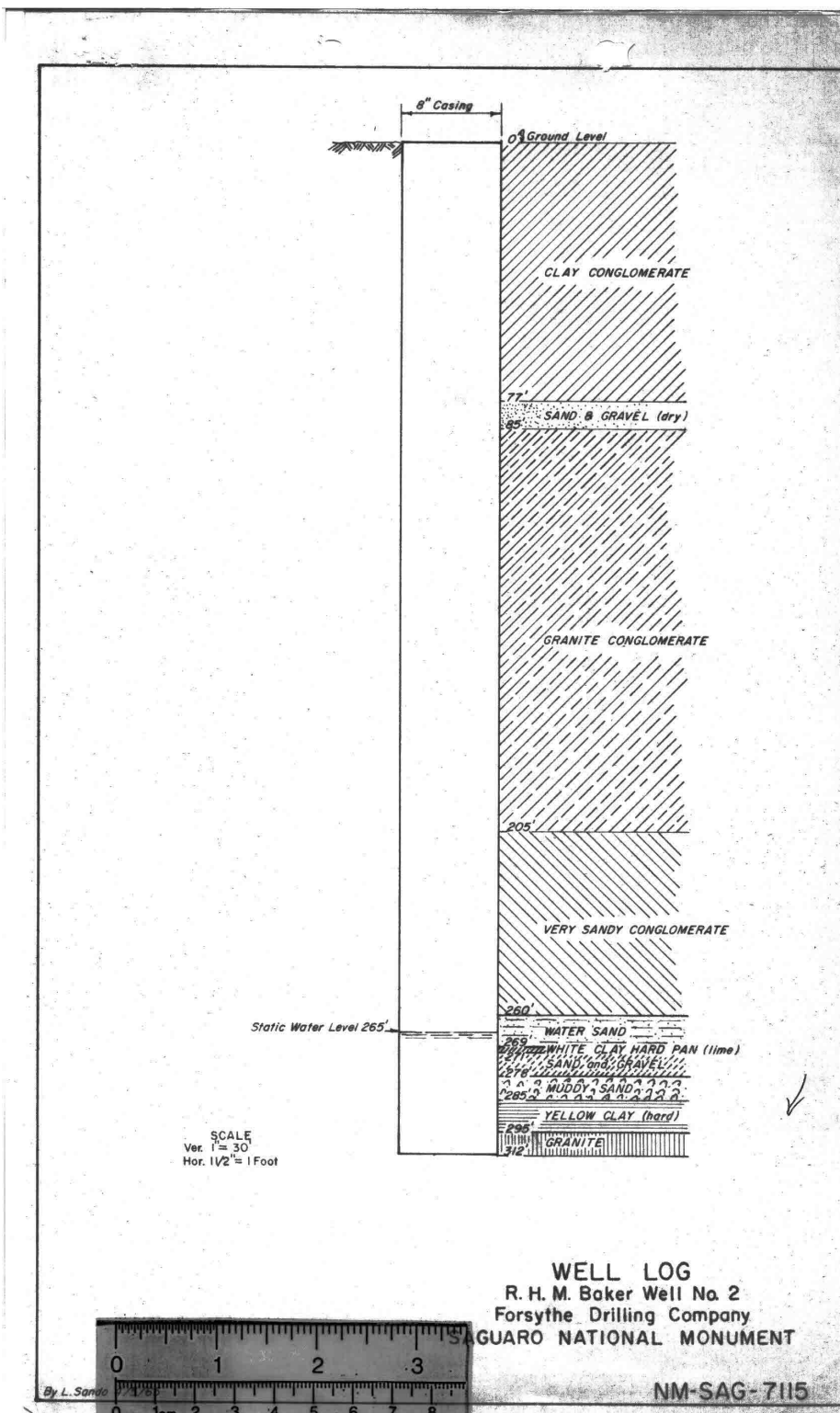
Office of Project Superintendent
Saguaro Forest State Park
SP-11-A
Tucson, Arizona
Feb. 10, 1937

R.H.M. BAKER WELL #2 - successful
NW 1/4 Section 31 (West of Park Boundary)
T14S R16E

Type - Drilled 8" casing installed to a depth of 300 ft.
Date - March 1931
Contractor - Forsythe Drilling Co.

0 - 77 clay and gravel conglomerate
77 - 85 sand and gravel - very loose
85 - 205 granite conglomerate
205 - 210 very sandy conglomerate
210 - 260 fine pure sand
260 - 269 water fine sand
269 - 271 white clay - hard pan
271 - 279 sand and gravel
279 - 285 fine sand - muddy
285 - 295 yellow clay hard
295 - 312 granite - hard drilling





Other Supporting Information



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
WESTERN REGION
450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94107

JUN 9 '82

L54 (WR-RNW)

June 4, 1982

Mr. Wesley E. Steiner, Director
Department of Water Resources
99 E. Virginia Avenue
Phoenix, Arizona 85004

Reference: Arizona Groundwater Management Act
(1980), A.R.S. 45-593

Dear Mr. Steiner:

Enclosed are the completed well registration forms for existing wells within the State of Arizona owned by the United States Government, Department of the Interior, National Park Service, Western Region. These forms have been completed for the following areas: Casa Grande National Monument (1 well), Chiricahua National Monument (8 wells), Coronado National Memorial (6 wells), Fort Bowie National Historic Site (1 well), Grand Canyon National Park (no wells), Lake Mead National Recreation Area (14 wells), Montezuma Castle National Monument (3 wells), Organ Pipe Cactus National Monument (21 wells), Petrified Forest National Park (3 wells), Saguaro National Monument (14 wells), Tonto National Monument (1 well), Tumacacori National Monument (3 wells), Tuzigoot National Monument (1 well), and Walnut Canyon National Monument (1 well). The location of these National Park Service areas are shown on the enclosed map (in red).

Of the total 77 wells being registered, 12 wells have a pump capacity exceeding 35 gallons per minute and therefore payment in the amount of \$120.00 (\$10.00 X 12) will be forwarded to your office by the U.S. Treasury Department under separate cover as the registration fee for these non-exempt wells.

If there are any questions with regards to this matter, or if we can be of further assistance, please contact Gerard S. Witucki, Chief, Division of Water Resources, (415) 556-8660, of this Office.

Sincerely yours,

FOR (Sgt) John D. Cherry

Howard H. Chapman
Regional Director, Western Region

Enclosures

See attached sheet for bcc's

Rocky Mountain
Regional Office

Regional Director	1/26/82
Deputy Regional Director	
Administration	
Park Operations	ML
Plan & Resource Pres.	
Coop Prog	
Communications & P.A.	
EEO	
Oper Eval	
Action Taken	

bcc's sent to:

Superintendent, Casa Grande, w/respective encls., w/blank form & w/o map
Superintendent, Chiricahua/Fort Bowie, w/respective encls., w/blank form & w/o map
Superintendent, Coronado, w/respective encls., w/blank form & w/o map
Superintendent, Grand Canyon, w/o encls.
-- Superintendent, Lake Mead, w/respective encls., w/blank form & w/o map
Superintendent, Montezuma Castle/Tuzigoot, w/respective encls., w/blank form & w/o map
Superintendent, Organ Pipe Cactus, w/respective encls., w/blank form & w/o map
Superintendent, Petrified Forest, w/respective encls., w/blank form & w/o map
Superintendent, Saguaro, w/respective encls., w/blank form & w/o map
Superintendent, Tonto, w/respective encls., w/blank form & w/o map
Superintendent, Tumacacori, w/respective encls., w/blank form & w/o map
Superintendent, Walnut Canyon, w/respective encls., w/blank form & w/o map
General Superintendent, Southern Arizona Group, w/respective encls., w/blank form & w/o map
Field Solicitor, San Francisco Office - Attn: J. Burke, w/encls. & w/blank form
Field Solicitor, Phoenix Office - Attn: W. Swan, w/map, w/blank form & w/example of
completed form
Regional Director, Rocky Mountain Region - Attn: W. McKeel, w/map, w/blank form &
w/example of completed form
Regional Director, Southwest Region - Attn: G. Moore, w/map, w/blank form & w/example
of completed form
(WR)AF, w/SF 1034, w/o encls.



United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION

450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94102

IN REPLY REFER TO:

L54 (RNW)

April 20, 1982

Memorandum

To: All Superintendents, Arizona Areas, Western Region

From: ~~ACTING~~ Regional Director, Western Region

Subject: Arizona Groundwater Management Act, required filings

In compliance with the Arizona Groundwater Management Act of 1980, we are required to register all existing wells within the State on or before June 12, 1982, see enclosure.

The Field Solicitor's Office has advised us that registration of existing wells on National Park Service lands should be made either as a matter of comity, in the case of Federal reserved water rights, or as a matter of compliance with Arizona State law, in the case of Federal non-reserved water rights.

The Division of Water Resources has begun to compile the necessary information for the filings, and in the process may be contacting your offices for further information. They will submit this material to the State.

Information which you feel the Division of Water Resources may not have, concerning recently changed well conditions, pump capacities, etc., should be relayed as soon as possible to the Division of Water Resources at 556-8660.

If you have any questions concerning the well registration requirements, please do not hesitate to contact Mr. Witucki and his staff.

W. Bruce White

Enclosure

cc:
General Superintendent, SOAR



UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
SAN FRANCISCO FIELD OFFICE
450 GOLDEN GATE AVENUE, BOX 36064
SAN FRANCISCO, CALIFORNIA 94102

April 9, 1982

Memorandum

To: Regional Director, Western Region, National Park Service
From: Field Solicitor, San Francisco
Subject: Arizona Groundwater Management Act; Required Filings

This memorandum is a follow-up to several conversations which our office has had with members of your Water Resources Division on compliance with Arizona's Groundwater Management Act (1980). This act requires, inter alia, that all existing wells be registered with the State on or before June 12, 1982. ARS 45-593. While there is a legitimate question as to whether or not this provision applies to wells on Federal lands, the Department has taken the position that as a matter of comity, it will file notices of Federal reserved water rights with appropriate state agencies. See memorandum dated February 29, 1980, from Deputy Solicitor to Assistant Secretaries, Fish and Wildlife and Parks, and Land and Water Resources, "Guidance from the Department of Justice on Water Rights Filings." For Federal non-reserved water rights, the Department has taken the position that there is insufficient legal basis for the assertion of these rights and that State water law, both substantive and procedural, must be followed for claiming or asserting this type of water right. See memorandum dated September 11, 1981, from Solicitor to Secretary, "Non-Reserved Water Rights -- United States Compliance with State Law."

The consequence of the foregoing memoranda is that registration of existing wells on NPS lands should be made with the State before the June 1982 deadline either as a matter of comity or as a matter of procedural and substantive compliance with Arizona State law.

If our office can be of assistance in this matter, please do not hesitate to contact us.

Ralph G. Mihan
Field Solicitor

John W. Burke
John W. Burke, III
For the Field Solicitor

State of Arizona
DEPARTMENT OF WATER RESOURCES
 99 E. Virginia Avenue, Phoenix, Arizona 85004

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Dear Well Owner:

Arizona's new Groundwater Management Act requires that all existing wells, regardless of size, be registered with the Department of Water Resources by June 14, 1982. An existing well is one that was drilled prior to June 12, 1980, and which has not been abandoned or sealed. Included are wells which were not completed by June 12, 1980, even though a Notice of Intent to Drill was filed with the Department.

For your convenience, enclosed are the registration forms and the information from your well file. If the information is still correct, simply transfer it to the new form. If the information needs to be updated, please do so on these forms. Be sure to file all forms in duplicate so we can return one copy to you.

There is no fee to register "exempt" wells with a pump capacity not exceeding 35 gallons per minute. "Non-exempt" wells, those with a pump capacity greater than 35 gallons per minute, cost \$10 each to register.

If you own additional wells for which we did not provide data, we probably do not have those wells in our records, or they are filed under another name. In the event you no longer own the well, please forward this information to the new owner.

If you have any questions about well registration, feel free to call us at 255-1546. The toll free number in Arizona is 1-800-352-5464.

Thank you for your cooperation.

Sincerely,

W. Don Maughan
 W. Don Maughan
 Deputy Director

WDM/CLL/
 Enclosure

Think Conservation!

Office of Director 255-1554

Administration 255-1550, Water Resources and Flood Control Planning 255-1566, Dam Safety 255-1541,
 Flood Warning Office 255-1548, Water Rights Administration 255-1581, Hydrology 255-1586.

D5039 SW

LSH-RLW
SAGU

Southwest Region
Santa Fe, New Mexico

SEP 26 1963

Memorandum

To: District Engineer, USGS Ground Water Branch, P.O. Box
4070, Tucson, Arizona 85717

From: Assistant Regional Director, Resource Planning, Southwest
Region, National Park Service, P.O. Box 1728, Santa Fe
New Mexico 87501

Subject: Administrative Report "Evaluation of Production Test,
Saguaro National Monument, Arizona", by H. H. Schumann

We are in receipt of your final copy of the subject administrative re-
port which you transmitted September 17th. According to your letter
of transmittal the report has been approved by your Washington office
for release to our Service.

On August 27th we forwarded copies of your preliminary report to our
Washington office and by memorandum of September 11th they acknowledged.
They called our attention to one correction which should be made. On
the first page of the report the location of the well is given as being
in Section 13, Township 14 S., Range 16 E.; this should read Section 31
in the same township and range. In addition, it is our thought that a
possible clarification might be made on page 4, the last sentence of the
third paragraph which states "Under ordinary conditions steel casing
can be expected to last only about 15 to 20 years.". If the local condi-
tions are known we think it might be well to insert a statement as to
whether or not this life span of casing is applicable to the Tucson area
or is this a general statement. It is our opinion because of the nature
of this report that it should remain an administrative report for Govern-
ment Use Only at least until the problem of water supply at Saguaro
National Park is solved. After we have drilled a test well we would have
no objection to release to the open file.

Based on this report we are planning to drill a test well in this area
during 1964 Fiscal Year. If it is possible we would like your assistance
in supervising the drilling and testing of this well. Will you please
send us the estimated cost of this supervision in order that we may budget
this amount during this Fiscal Year?

W O D C

SEP 30 1963

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In early July we tried to award a contract for test wells at the Tucson Mountain District of Saguaro. At that time one or more contractors advised us they would bid except we had limited our specifications to a cable tool rig. In your opinion, would it be safe in preparing specifications for the use of either cable tool or rotary rig?

We were informed that your office has already completed a geological and hydrological reconnaissance of the area and have indicated to the Superintendent where this well should be located at no cost to our Service. We appreciate this very much.

When the report has been corrected will you please send us the results in quadruplicate for distribution.

(SIGNED)

Leslie P. Arnberger

cc: Director (2)
WDC (2) ✓
Superintendent, Saguaro

7W

September 11, 1963

194-224

Memorandum

To: Regional Director, Southwest Region

From: Chief, Branch of Water Resources

Subject: U. S. Geological Survey report Evaluation of Production Test, Saguaro National Monument, by H. H. Schumann, Saguaro

Mr. Schumann's interesting report, transmitted by Mr. Arnsberger's memorandum of August 28, has been reviewed here.

The behavior of the water levels in the well during the test was rather erratic and Mr. Schumann wisely drew only general conclusions. The well obviously is in poor condition, and, if Mr. Schumann's statement that steel casing lasts only 15 to 20 years applies specifically to the Tucson area, the well has lasted a few years longer than average. The location of the well is given as sec. 13, T. 14 S., R. 16 E. rather than sec. 11. Presumably this is a typing error.

The results of the test are disappointing but perhaps not unexpected and, as the report points out, a new well is needed to insure an adequate and reliable supply. Garwood Spring, mentioned in recent correspondence, goes dry and cannot be depended upon for a year-round supply although it may be useful as a supplemental supply. Presumably no other spring or surface source is close enough to be considered.

The report recommends a geologic and hydrologic reconnaissance of the headquarters and adjacent areas to select a site for a new well. Because the Monument covers only the edge of the valley fill where the occurrence of ground-water is spotty and the water levels have been declining continually, this seems sound advice. The aim of such a reconnaissance should be a supply adequate for present and reasonable future needs of the headquarters area, and, as the report points out also, the area of such a reconnaissance should include lands outside the Monument.

The decision to make a reconnaissance, of course, will have to be judged in relation to the needs of the entire Region and the availability of funds.

E. W. Reed

cc:
Superintendent, Saguaro
Chief, WDRS (2)

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Saguero
Region Three
Santa Fe, New Mexico

W K 6/7
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154
SAGU

JAN 23 1962

Mr. P. Eldon Dennis
District Geologist
Ground Water Branch
P. O. Box 4070
Tucson, Arizona

Dear Mr. Dennis:

The results of pumping tests on Baker Well No. 2 at Saguaro National Monument made by Mr. S. G. Brown of your office stated on page 2 that the water level in the well was not shown in the June 1950 test.

We have enclosed a copy of a report of pumping test dated June 2, 1950 signed by Carl W. Fistor, which we believe was made available to your office early in the negotiations. This report shows the water level to have been 265 feet and the total depth of the well, 310 feet.

This information is supplied in the event that it was not made available from the records maintained at the Monument Headquarters.

Sincerely yours,

(SIGNED)

George W. Miller
Acting Regional Director

Enclosure

Copy to: ✓ Director (2) w/o enclosure
Chief, WODC (2) w/o enclosure
Supt., Saguaro w/o enclosure

Saguaro

*WRB
2
WPB*

L54-ALW

January 11, 1962

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Branch

Subject: Results of Pumping Test on Baker Well No. 2, Saguaro N.M.

We have received a copy of Mr. G. W. Miller's letter of January 4 to District Geologist Dennis with copy of Mr. Dennis' letter of December 19, 1961, and Mr. S. G. Brown's pump test report on the subject well.

Mr. Brown, on page 2 of his report, states that the water level in the well was not known at the time of the June 1950 test. We have examined Docket 1 and find that the "Record of Pump Test" dated June 2, 1950, by Mr. Carl W. Pistor indicated the water level to have been 265 feet. We suggest that you furnish the USGS with a copy of Mr. Pistor's pump tests data, if you haven't done so, since it appears they lack this information.

SIGNED

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

**Copy to: Superintendent, Saguaro
Chief, WRB (2)
Mr. P. Miller
✓ Mr. Dunn**

VABerte:lct

L54-L

WR 6/7
@

September 26, 1956

Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Section
Subject: Location Surveys, Baker Well and Freeman Spring, Saguaro N.M.

With his memorandum of August 10, Mr. Kell sent two advance prints, of which one is returned, of the locations of Baker Well, and Freeman Spring, with requests for comments.

The Baker Well and Freeman Spring are sources for two different water systems, and each part of the print should be made part of a complete plan of the existing and/or proposed water system. The drawing for Baker Well should include all land from the west line of Section 31 easterly to and including the area of use. The drawing for Freeman Spring may only need to show the northeast quarter of Section 5 if the use is all to be included in that area. To fit drawings of the prescribed size the scales may have to be reduced.

At this time, with only surface waters subject to appropriation in Arizona, the data for Baker Well is only for record purposes, and they need not be completed in the final form. It would be better to add the tie to section corner, to Drawing NM-SAG-2041, also project the section lines thereon, and then supply new prints for the assemblies of Docket 1 in your office, the Monument, and here.

It may be desirable to obtain a multifoil print of Drawing 2041 or a later one showing the same area, to use for the revised drawing for Docket 1 because it is noted that larger pipe sizes have been installed than originally planned. It would also be well to get the reproduced tracing with extra space to right, remove existing right margin, and complete developed area if it extends beyond the area now included. The signature blocks along left margin could be removed, and that margin moved to right to keep the total 36 length of drawing. The Monument boundary, and boundary of Federal tract covered by the deed, should also be shown.

It is also evident that the United States should have a right-of-way along the county road. If one has been granted, a copy of the instrument should be provided for each assembly of the docket, and the right-of-way should be noted on the drawing by reference to grantor and the date.

It is also evident that we do not have all the data on the stock watering tank at the well. A pipe connection should be shown. In addition, the tank is too high for stock use unless partially buried, which suggests a probable additional pipe and watering trough. This leads to the question of who uses the tank, and whether there is a permit of which copies should be included in the docket.

Attached is copy of the Completion Report of May 1956, which should be added to the docket. This relates to improvements at the headquarters. We should also have a record of the dates and costs of construction of the main water system and pump installation. The date of that construction, capacity of pump, and cost of water system from diversion to, and including the reservoir, are most important.

All of this work, as outlined, is premature as a water right project. It should be done as a Water Right Investigation and Administration Project under M&P Account 0140 (143.2). Since all those funds are being used in water resources investigations, any charges under 347 should be kept to the minimum which will ultimately constitute part of the cost of establishing the water right as a capital investment.

The drawing for Freeman Spring is a different matter. The water is subject to appropriation now. In addition, we should include the claim in those for Federal Intervention in Arizona v. California.

General instructions for water right maps are given on page 166 and a sample drawing outline is shown on four unnumbered pages in front of page 187 in Administrative Procedure Act, Title 25, Land Department, August 1953, of which Mr. Barton must have a copy for which I think we paid \$3.00. The specific title of the drawing should be "Freeman Spring Diversion for (give name of area or development) Saguaro National Monument".

As shown on the returned print, the water course should be shown from the spring to the adjacent creek, and the name of creek and direction of flow should be shown. The drawing should also indicate that flow is to the Santa Cruz River through Rialto Creek or Pantano Wash, as the case may be. In preparing the drawing, it is suggested that the draftsman also refer to the water right maps in the Grand Canyon National Park and Petrified Forest National Monument dockets for models which have been accepted.

In addition to the drawing, we need a measurement of the flow of the spring, with date. The flow is probably only 65% of the average

which we should claim, because of the prolonged drought conditions. We should also know where the spring flow terminates on the ground surface, if it does, and whether the flow of the adjacent creek is permanent or only intermittent. The drawing should also show these facts, and how far beyond the limits of the drawing the creek flow becomes permanent, if necessary.

RECEIVED

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent Saguaro, w/c attachment
Western Office of Design and Construction, w/c attachment
✓ Mr. Dunn

AvVDunn:lct

WR 6/2
In reply refer to:
LSH, SAGU-L

Region Three
Santa Fe, New Mexico

March 18, 1953

Memorandum

To: General Superintendent, SWNM
From: Assistant Regional Director
Subject: Water Right Dockets Nos. 1 and 2, Saguaro

In order to complete the information for water right dockets Nos. 1 and 2 at Saguaro we need the date that the Chamber of Commerce well was started. According to information we have the well was originally called the R. H. M. Baker Well No. 2 and was completed on February 10, 1937. It is the date that drilling was started that we need, if this information can be obtained.

Docket No. 2 will cover the well deepened by Mr. Kenner under Special Use Permit No. I-33ap-289. Mr. Dunn has requested that you furnish a name or number for this well, the date that it was drilled, the name of the person that drilled the well (owner, as well as driller), if this is possible. We should also like to have the depth of the well before it was deepened by Mr. Kenner and the number and kind of livestock watered at the well.

Mr. Dunn has reminded us that there has been no report on the questions raised in his memorandum of July 3, 1951, concerning the seven springs located on the Monument. We believe your files for Saguaro will show that the Superintendent was requested to secure this information for Mr. Dunn. This information is needed since dockets, or at least parts of dockets, should be made up to record all of the springs on Federal lands, together with the description of the water system and the amount of use at the various springs. Mr. Dunn points out that undoubtedly many of the springs are older than the Monument, dating before 1932, and it may be possible that some of the water has already been appropriated by permittees. If possible, this matter should be determined before we take any action so as to avoid a situation which has occurred at Organ Pipe Cactus where the Gray Partnership has filed on wells and springs within the boundary of Organ Pipe Cactus National Monument.

We would like to have information for Dockets Nos. 1 and 2 as soon as possible, and the information regarding the seven springs in the Monument should be furnished at your earliest convenience.

(SIGNED)

P. P. Patraw
Assistant Regional Director

Attachment

In duplicate

Copy to: Director (2)

In reply refer to:
LS4 SAGU-1

March 12, 1953

Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Branch
Subject: Water Right Dockets Nos. 1 and 2, Saguaro National Monument

In accordance with the memorandum of March 3 from Mr. McAdams, we have made the following changes in Docket No. 1:

1. Changed "Davis Well" to read "R. H. H. Baker Well No. 2," on the tab of the folder.
2. Made the same notation at the well on drawing WS-SAG-2041, and inserted that drawing at the bottom of the assembly.
3. Removed the "Record of Well" of November 1, 1952.
4. Crossed off item 7 on the outline of assembly.
5. Crossed off "(to be supplied)" at the end of item 1 of the outline.

Please add the date of priority on the tab and advise us of the date. The date should be that when drilling was started. I assume that it was just finished on February 10, 1937.

Attached is a skeleton assembly (in triplicate) of Docket No. 2, to cover the well used by Mr. Kenner under Special Use Permit I-13up-269. Please make the following additions, and advise us, so that our assembly may be made to agree.

1. On the tab, give name or number of well, and approximate date the original well was drilled, as date of priority.
2. Please rewrite the statement, filling in the proper answers in the blank spaces.

In reviewing the file, I am also reminded that there has been no report on the questions raised in my memorandum of July 3, 1951, concerning the seven springs on the Monument. I have just learned from Mr. Cook that Mr. Kenner holds one of four grazing permits, that he is authorized to graze 60 of the 395 head of cattle, and that, although he is authorized to run the cattle during 10 months, all Monument land is grazed for much less time. Mr. Cook also advises that the springs are probably located, variously, on Federal, State, and private land, and that there are a number of diversion works and watering troughs.

We should at least make up a docket, in parts, to record all the springs on Federal land, the descriptions of water systems, and amount of water use. Since the use is probably older than the Monument, dating from before 1933, it is also possible that the water has been appropriated by permits. These matters should be determined before we take any action to cause situations such as the claims of the Gray Partnership at Organ Pipe Cactus, or the Bureau of Land Management protest of the claim of this Service at Arches.

(SGD.) A. VAN V. DUNN,
A. van V. Dunn
Chief, Water Resources Branch

In triplicate

Attachments 3

AvanVDunn:sh

WR 6/7 @
In reply refer to: *SWN*
154 SAGU-L
ans.

Region Three
Santa Fe, New Mexico

March 3, 1953

Memorandum

To: Director
From: Regional Chief, Land and Recreation Planning
Subject: Water Right Docket No. 1, Davis Well, Saguaro

Baker Well

With Mr. Dunn's memorandum of February 18 he attached three tentative assemblies of Docket No. 1 which he called Davis Well, Saguaro National Monument. Mr. Dunn calls our attention to the well record of November 1, 1952, and a letter and memorandum of November 5, 1937, and June 14, 1950, which disagree as to the date of drilling, depth, and probable well yield.

The report or well record of November 1, 1952, prepared by Superintendent King, covers the deepening of a well in the SW $\frac{1}{4}$ of Section 4, T. 15 S., R. 16 E. This was authorized under a Special Use Permit, No. I-33np-289, approved by Mr. Patraw on August 3, 1951. All of the other enclosures in tentative Docket No. 1 cover the Tucson Chamber of Commerce well which is located in the NW $\frac{1}{4}$ of Section 31, T. 14 S., R. 16 E., GRSNM. Early records of this well refer to it as the Randall H. M. Baker Well No. 2.

We have attached a blackline print of Dwg. NM-SAG-2041, Water System, Headquarters Area, Saguaro National Monument, which was prepared by Mr. Bradley on September 25, 1951. We believe that Mr. Dunn may wish to attach prints of this drawing in the Docket No. 1, and it seems to us that the name of the well should be changed to R. H. M. Baker Well No. 2. 

Please advise if you wish us to secure additional information so that a Docket can be made up on the well located in the SW $\frac{1}{4}$ of Section 4, T. 15 S., R. 16 E. We will not make distribution of the tentative assemblies of Docket No. 1 until Mr. Dunn advises us if prints of Dwg. NM-SAG-2041 are all that need to be inserted.

(SIGNED)

Milton J. McCalm
Regional Chief of Land
and Recreation Planning

In duplicate
Attachment
Copy to: Gen. Supt., SWNM (2)

In reply refer to:
LS4 SAGU-1

February 18, 1953

Memorandum

To: Regional Director, Region Three
From: Chief, Water Resources Branch
Subject: Water Right Docket No. 1, Davis Well, Saguaro National Monument

Attached are three tentative assemblies of the subject docket. You will note that the well record of November 1, 1952, and the pump tests and analyses with letter and memorandum of November 5, 1937, and June 14, 1950, disagree as to date of drilling, depth, and probable well yield. They may not relate to the same well.

Please advise which records should be removed from the docket and how the others should be reconciled. Your attached assemblies may be so adjusted, and we will then make the same changes in ours. The date of priority on the assembly tab, and the date of drilling should be the same.

WATER RESOURCES BRANCH

A. van V. Dunn
Chief, Water Resources Branch

In triplicate

Attachments 3

AvanVDunn:sh

W R Copy
CR

In reply refer to:
12223 SAGU-C

Memorandum

To: Regional Director, Region Three

From: Acting Director *Baker*

Subject: Acceptance of Deed from Tucson Chamber of Commerce
Conveying 21.26 Acres of Land (Tract No. 31-7) to the
United States for the Acquisition of a Water Supply
Contained thereon for Use by Saguaro National Monument

The attached two copies of the Attorney General's final title opinion of April 16, 1952, show that a valid title to the land referred to above is vested in the United States subject to certain easements and rights which have been administratively waived, and subject, also, to the payment of the purchase price of \$2,900 as provided by contract No. I-100np-419. The voucher covering the purchase price has been placed in line for payment, and it is expected that a check will be issued to the vendor within the next few days, thereby meeting this requirement of the title opinion.

In order to complete the record of the acquisition of this land, I have formally accepted the deed of conveyance as of April 16, 1952, under the authority contained in the Interior Department Appropriation Act, 1952 (Public Law 136, 82d Cong.), and in 16 U.S.C., 1946 ed., sec. 17j-2(g); and pursuant to Section 7 of Departmental Order No. 2640, dated June 11, 1951 (16 F. R. 5846), delegating authority to this Service to accept deeds on behalf of the United States. The deed of conveyance, certificate of title, and other papers relating to the acquisition of this land will be placed among the National Park Service land records and will be designated as Saguaro National Monument Deed No. 5.

There are attached three copies of form NPS-L-1 covering this land. Please have entered upon the form the physical characteristics, the improvements on the land at the time of acquisition, if any, any existing reservations, easements, or rights not presently shown, and return the original of the form to this Office.

(SGD) Ronald E. Lee
Acting Director

In duplicate

Attachments 5

Copy to: Lands; Mr. Siler (for deed files); ☒ Legal
TBQuinn:CS:lt



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

In reply refer to:
12223 SAGU

SEP 12 1951

Air Mail

Memorandum

To: Regional Director, Region Three

From: Director

Subject: Approval of Option to Purchase from the Tucson Chamber of Commerce, for \$2,900, 20 Acres of Land, Comprising the $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31, T. 14 S., R. 16 E., G. & S. R. B. & M., near Saguaro National Monument, Arizona

With Mr. Miller's memorandum of August 30 there were transmitted two signed copies of a six-month option, dated August 20, 1951, by which the Tucson Chamber of Commerce offers to sell to the United States, for \$2,900, the "Baker Well Tract" comprising 20 acres of land and interest in water, situated, according to option and appraisal descriptions, in the $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31, T. 14 S., R. 16 E., G. & S. R. B. & M., Arizona, but which, according to the Bureau of Land Management official plat of the township, is situated in the $\frac{1}{2}$ Lot 1, fractional Sec. 31, T. 14 S., R. 16 E., G. & S. R. B. & M., Arizona, and contains 22.66 acres of land. The NW $\frac{1}{4}$ of Section 31 has been designated as a lot because it is not a standard 40-acre tract, abutting on the westerly range line. This tract is outside and approximately 0.75 mile west of the exterior boundary of the Saguaro National Monument, Arizona.

The land is gently sloping with some uneven areas and lies at about 2,500 feet elevation. It is covered with desert flora typical of this region. An 8-inch cased well, 310 feet deep, which by a preliminary pump test, gave indications of a constant 5.1 gallons of water per minute, lies within the tract. This measured pump delivery was obtained during a dry period, and did not constitute a complete measure of the well yield for even that period. This property fronts on Houghton Road, a graded highway, leading west about 12 miles into the City of Tucson. The water supply, general topography, vegetation, accessible highway, and nearness to Tucson and the Monument render this an exceptionally desirable subdivision site. As such, it has values in excess of the option price. The Tucson Chamber of Commerce acquired this property in 1939 for the express purpose of preserving it for the Monument. The dependable water supply is urgently needed in the Monument headquarters area which at present is dependent on scanty and unreliable sources.

Mr. Oscar W. Davis, a local appraiser and realtor, appraised the property on August 17, 1951, for \$3,045. He placed a value of \$1,545 on a windmill, the pump, and the well, which is a conservative estimate of the cost of reproduction at today's prices. The land he appraised at \$75 per acre, and using the 20-acre figure gives a total land value of \$1,500. Nearby land of similar topography with inferior water supply sold in 1949 at about \$85 per acre. Considering the upward trend of real estate values in the past year, Mr. Davis' appraisal may be considered conservative. The option consideration of \$2,900 is \$145 less than the combined water and land appraisal of \$3,045.

Since the property is outside the Monument's exterior boundary and since the water supply is the motivation for the acquisition, it will, therefore, be purchased with water rights funds, which are available for land acquisition outside of a park or monument, when such land must be acquired to gain title to or interests in water for use in such areas.

In the circumstances, I have today approved the option pursuant to section 6 of Departmental Order No. 2640, dated June 11, 1951 (16 F. R. 5846), delegating authority to this Service to accept options. The approved option has been assigned contract No. I-100mp-419.

Three conformed copies of the option are attached. One copy should be delivered to the vendor, one copy forwarded to the Superintendent, and the other retained for your records.

The vendor should be requested to furnish an abstract or certificate of title in the form approved by the Department of Justice, together with a draft of the deed proposed to be executed in favor of the United States and its assigns conveying the land. If, as we assume, the Tucson Chamber of Commerce is a corporation, the title papers should be accompanied by a certified copy of the corporate resolution authorizing the sale of this land to the United States and empowering appropriate officers of the corporation to execute the necessary title papers.

It is deemed advisable, if there is no authority to the contrary, to have the land description in the abstract or certificate of title and in the draft of the deed conform to the land as delineated on the Bureau of Land Management's official plat of the township.

With Mr. Miller's memorandum there were two copies of the Possessory Rights Report dated August 22, 1951. They will be retained here and submitted to the Attorney General with the other title papers.

(SGD) A. E. DEWEY
Director

In duplicate

Attachment

Copy to: ✓ Mr. Dunn
Information
Legal
Natural History
Lands
Accounts
Budget
Fiscal--Mr. Neilson:

Please allot sufficient funds from 1952 water rights appropriation 14X1635 and charge to Account 347.02 under which funds have already been spent for the well test.

CSmith:AvanVD:lt



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

In reply refer to:
LSh SAGU

AUG -7 1950

Memorandum

To: Regional Director, Region Three
From: Associate Director
Subject: Characteristics of Well of Chamber of Commerce, Baker Tract, Saguaro National Monument

From the information included with the memorandum of July 26 from Mr. Cornell, and further review of the records of the test of 1937, we do not consider another test justified under the conditions existing.

We overlooked the statement on the charts with the record of the 1937 test that the depth to water was 254. The depth given this year was 265 feet, indicating a drop in the water table of 11 feet. This is probably due largely to the subnormal index of wetness which has prevailed since the last wet year of 1940-1941, and the water level should build up with the next wet phase of the cycle.

We are also advised by the Ground Water Division, Geological Survey, that there is a general over draft on the ground water in the vicinity and the water table is dropping about 3 feet in 5 years. They believe that the well in question should serve for some years, but there is going to have to be regulated reduced pumping in the area, and it should be noted that a 30' drop in water table might dry up the well.

There is confusion in Mr. King's statement of July 25 that the well is in solid rock. The log of Baker well No. 2, in NW 1/4 of Section 31, T. 14 S., R. 16 E., which we have assumed to be the one under discussion, and for which we have the draw-down charts, indicates conglomerate, hard-pan, clay, and sand, in various layers to a depth of 295 feet, and then 17 feet of granite. Accordingly, the susceptibility to cave-in is not entirely clarified.

These points should be fully considered and explained in connection with the appraisal and justification for purchase.

(SED.) A. E. DEMARAY

Associate Director

In duplicate

Copy to: Mr. Siler

Mr. Dinn

AvanVDunn:mam



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

In reply refer to:
LSA, SAGU

Saguaro 660-05.7
X 300

JUN 26, 1950

Memorandum

To: Regional Director, Region Three
From: Associate Director
Subject: Water Right Acquisition Program for 1951, and Possible Purchase of Baker Well Tract - Saguaro National Monument

We have received the memoranda of June 14 from Mr. Patraw outlining your water right requirements and from Mr. Davis with more data on the test of the Baker Well on the land of the Tucson Chamber of Commerce at Saguaro National Monument.

We concur in your program but should like to add the following:

1. Purchase of the water rights and other interests of the heirs of Juan Jose Orozco at Organ Pipe Cactus National Monument to the extent that property interests can be established.
2. Initiation of rights to divert waters of the Rio Puerco at Petrified Forest.

We will have approximately \$12,000 for water right purchases in 1951 provided the Davis tract at El Morro is acquired at \$6,000, and the condemnation of the Nevares property at Death Valley is consummated at the estimated \$20,000. Because of the uncertainty in connection with the condemnation, we do not wish to deplete the reserve of \$12,000 too much at this time. (However, it will be satisfactory for you to initiate proceedings for the purchase of the Baker Well tract in Saguaro if there is reasonable certainty that the price will be \$2,000 more or less.)

An appraisal may be made, but the characteristics of the well should be checked better first, both for our information and for the information of the appraiser.

By memorandum of December 13, 1937, for Joseph E. Taylor, Regional Attorney, from Mr. Pinkley, we received a fairly good report on a pump test, except that the pump broke down before covering

all rates of draft, made on November 4 and 5 of that year, by the Carl W. Pister Drilling Company. The same company seems to have made the recent tests.

From the earlier test, we believe that the well yield is ample for our purpose. However, we should like to have better assurance that the well can still yield about the same as in 1937. We should like to have a test for some hours at 13 gpm or 15 gpm, and the draw-down and sustained water level resulting. If it is cheaper to use the pump of 5.0 gpm, or 5.1 gpm capacity, then we should like to know whether the sustained water level is about 7 feet below starting level, as suggested by the 1937 test. To supplement the earlier test, we should also like to know whether the normal depth of water in 1937 was 265 feet as has been found this year. Mr. Pister may have that data.

We also notice that there has been continuing infiltration of sand. There should be a report as to whether this suggests caving in of the ground around the well casing, and whether the rate of sanding will be objectionable as it will relate to pump operation and the amount of suspended matter in the water supply.

These matters can be investigated while having the property appraised, and the report can be included in, or submitted with the appraisal. Before actually making another pump test, however, you should try to get the limited information still needed from Mr. Pister.

We will allot water rights funds for both appraisal and any further tests which may be needed, on advice as to costs. In arranging for the appraisal, please refer to the criticisms of the appraisals of the Davis tract at El Morro, and be sure that the proper objectives are obtained in this case.

(Sgd) A. E. Demaray

Associate Director

In duplicate

Copy to: Mr. Dunn

AvanVDunn:sh

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

In reply refer to:
D5039 SAGU

June 14, 1950

Memorandum

To: Director
From: Acting Associate Regional Director *Baker*
Subject: Pump test of well on land of Tucson Chamber of Commerce,
Saguaro National Monument

Mr. Demaray's memorandum of June 1 has to do with the test on a well at Saguaro National Monument. The one and one-half hour test mentioned in my memorandum of May 18 was a report on a preliminary test run in advance of the main test.

There is enclosed copy of report of the pump test conducted by Mr. Carl W. Pistor which shows two pump runs, one of eight hours and one of four hours with the pump operating at its full capacity of 5.1 gallons per minute. It is evident from this report that no record was made of the draw-down of the well at this pumping rate and that no record of the length of time between the two runs was recorded. Both of these figures are essential to determine the ultimate capacity of the well but it is evident from Mr. Pistor's report that we can depend upon the continuous delivery of 5.1 gallons per minute.

Will you please review the report of the test as submitted by Mr. Pistor and advise us if you wish to have the test rerun and the draw-down recorded at various periods during the length of the test.

There is also enclosed copy of Superintendent King's memorandum of June 10.

/s/ John M. Davis
John M. Davis
Acting Associate Regional Director

Attachments 2

Copy to: Superintendent, Saguaro

C
O
P
Y

CARL W. PISTOR

Mail Address: 337 E. Speedway
Shop: So. 4th Ave. and 25th St.
Tucson, Arizona

June 2, 1950

REPORT OF PUMP TEST - SAGUARO NATIONAL MONUMENT

On May 10th we installed temporary pump in 6" well located one mile west of Cactus Forest Office.

Well 8" OD part way - 6" OD at bottom section.

Water level 265'; total depth of well 310'.

Pump used was 6" stroke Crane Co. jack, operating at 55 strokes per mi.

Cylinder 2 $\frac{1}{2}$ ", Column pipe 2 $\frac{1}{2}$ ", pump rods No. 1 Airtite.

Capacity 5.10 gals. per min.

First Run: pump operated eight hours engine stopped.

Second Run: pump operated four hours then pump was shut down.

0 - 3 hours water was sandy then cleared and pump 5.10 gals. per min. during total time of operating.

Remark: This well will produce this amount of water continuously.

/sgd/ Carl W. Pistor

CARL W. PISTOR

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Saguaro National Monument
Tucson, Arizona

June 10, 1950

MEMORANDUM

To: General Superintendent
From: Superintendent, Saguaro
Subject: Test of well on land of Tucson Chamber of Commerce

The report referred to in Mr. Lassiter's memorandum of June 6, concerned a preliminary test of the well on the Tucson Chamber of Commerce property. This report was transmitted to the Regional Office for informational purposes and was not intended as final.

Subsequently a regular test was accomplished by Mr. Pistor over a total period of twelve hours. The result of the test indicates a good supply of water can be obtained at a sustained flow of 5.10 gallons per minute. Mr. Pistor's report of the test was forwarded to your office on June 3, but apparently was not received. If you do not receive it within a few days, please inform me and I will endeavor to secure new copies as quickly as possible.

/sgd/ Samuel A. King

Samuel A. King
Superintendent

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

In reply refer to:
L2223 SAGU

May 18, 1950

Memorandum

To: Director
From: Acting Associate Regional Director
Subject: Test on Chamber of Commerce Well - Saguaro National Monument

Reference is made to Mr. Demaray's memorandums of March 7 and April 21 concerning the development of a source of water for use at Saguaro National Monument.

A radio message from Superintendent King reports that a 1-1/2-hour pumping test has been run on the well in Section 31, owned by the Tucson Chamber of Commerce. Water was delivered from this well at the rate of five gallons per minute or 7,200 gallons per 24 hour period.

There is attached copy of a letter from Mr. Goyette, Manager of the Tucson Chamber of Commerce, addressed to Superintendent King which is self-explanatory. On my next trip to Tucson, I will discuss this matter with Mr. Goyette. It is believed that the volume of water will be sufficient to meet the needs of Saguaro for several years to come. In view of this, no further steps will be taken for the present to explore additional sources of water for monument use.

/s/ John M. Davis

John M. Davis
Acting Associate
Regional Director

Attachment

Copy to: Supt., Saguaro

C O P Y

May 1, 1950

Mr. Sam King,
Ranger in charge,
Saguaro National Monument,
Tucson, Arizona

Dear Mr. King:

We will be very happy indeed to have you run a test on the water in the Baker Well located on the 20 acre plot which we own near the Saguaro National Monument. As you know, originally this 20 acre plot was purchased in connection with a program to make permanent the Saguaro National Monument, and the Chamber's sole purpose in supplying this property with the well was to assist in securing a permanent set up for the Monument. As stated, we will be happy to have you use the well for test purposes and if it develops later that it is desirable for the use of the Monument we will be very happy to discuss the matter with you. We are sure that we can work out satisfactory arrangements in connection with its use should you desire to use it.

Sincerely,

TUCSON CHAMBER OF COMMERCE

C. Edgar Goyette, Manager

CEG
c

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HEADQUARTERS, SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA

Saguaro N. M.
x White Sands
x Montezuma Castle
x Chiricahua

May 7 1938

May 3, 1938.

Mr. Joseph E. Taylor, Attorney,
Branch of Land Acquisition and Regulation,
National Park Service,
610 Sheldon Building,
San Francisco, California.

Baker
Felt

Attention: Albert L. Johnson,
Associate Attorney.

Dear Sir:

Reference is made to your letter of April 28 requesting information with respect to various water rights problems under consideration by your office.

Difficulty is being encountered with respect to the option on the Dog Canyon water supply at White Sands National Monument. Mr. Lackey, of Region Three, was handling this problem, but resigned some weeks ago before it had been brought to its conclusion. The original option has been properly recorded, safeguarding the Government's rights. The owner, Mr. Lawson, still maintains that a mistake was made and wishes to patent only 40 acres and the water right to the Government. This proposal would be acceptable, but the State Land Commissioner refuses to permit Lawson make 40 acres patent, insisting that Lawson must patent the entire tract. While it appears that the option is enforceable at law, we are still hoping for an amicable settlement. It is understood that the funds to complete the purchase were obligated prior to lapse of the appropriation and are still available. There is, thus, really no change in the status of the matter, except for recordation of the option, since the last report in your files.

With respect to the situation at Montezuma Castle National Monument you are referred to Mr. Taylor's letter of October 29, 1937, in which it was said that "Since he acknowledged that the filing establishes date of priority as of March 9, 1937, it seems to us that our position has been protected. We recommend that the matter be allowed to rest in status quo if possible."

No further action has been taken and it is our belief that the situation is unchanged from the date of Mr. Taylor's letter, supra.

(2)

There is no change in the status of the water right problems at Saguaro National Monument. It will be recalled that apparently J. Rukin Jelks has a valid right to the only surface supply of water in the Tanque Verde section of the monument. This section of the monument is, moreover, the subject of proposed legislation which will exclude it, returning it to the National Forest; hence it is felt that pending determination of this legislation no further investigation or action is indicated with respect to that portion of the monument. There are apparently no water rights involved in the so-called cactus section of the monument west of the Tanque Verdes. The Government now owns none of this land. Proposed legislation would provide funds for the purchase of these alienated lands essential to inclusion of the cactus in the area owned by the Government. It is felt, however, that even after acquisition of the alienated lands, no water right problem will exist. The land is particularly arid and the development of even subsurface waters is doubtful. It may be worthy of note in your files that the proposed legislation includes the sum of \$1,500 for the purchase of a right of way, two acres of land, and an existing well in Section 31, Township 14 south, Range 16 east, G. & S. R. B. M., now owned by Randall H. M. Baker, P. O. Box 2823, Tucson, Arizona. The option runs 18 months from December 11, 1937. The well showed a production of 20 gallons per minute after continuous pumping during a prolonged dry season. Report of the chemical laboratory included the statement that "This water is remarkably soft and pure." Driller's log and complete inventory of casing and equipment are on file in this office.

Our latest file on the water situation at Chiricahua National Monument is Mr. Tolson's letter of January 17, 1938, addressed to Mr. Taylor. We plan to complete construction, if possible, under CCC prior to September 30, 1940, but now have a crowded program which prevents the purchase of necessary materials, and it is expected that this work must be deferred at least until calendar year 1939.

Cordially,



Frank Pinkley,
Superintendent.

