



WATER-RIGHT DOCKET

Pipe Spring National Monument

Docket No: 2

CULINARY WELL

State Water Rights Documentation

06-09-1982: registration of existing wells

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

REGISTRATION FEE (CHECK ONE)

EXEMPT WELL (NO CHARGE) ☐

NON-EXEMPT WELL - \$10.00 ☒

FOR OFFICE USE ONLY

REGISTRATION NO. 55- 611159

FILE NO. B(40-4)5 cdl

FILED 6-10-82 AT 1 PM (DATE) (TIME)

INA _____

AMA _____

1. Name of Registrant: National Park Service, Pipe Spring National Monument

Rural Delivery _____ Moccasin _____ Arizona _____ 86002
(Address) (City) (State) (Zip)

2. File and/or Control Number under previous groundwater law:
6103702 _____ 35- (B. 40N. R4W. 5.1) _____
 (File Number) (Control Number)

3. The well is located within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 5
 of Township 40N N/S. Range 4W E/W. G & S R 1 & 2
 County of Mohave

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

5. The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial - Domestic, Public _____)

6. If for irrigation use, number of acres irrigated from well Not for irrigation

7. Owner of land on which well is located. If same as Item 1, check this box ☒
Paiute Indian Tribal Council
Pipe Spring National Monument Moccasin _____ Arizona _____ 86002
 (Address) (City) (State) (Zip)

8. Data (If data not available, write N/A)

a. Depth of Well _____ 205 _____ feet

b. Diameter of casing _____ 8" 0-175' _____ inches

c. Depth of casing _____ 8"-175' _____ feet

d. Type of casing _____ Unperforated 0-175' _____

e. Maximum pump capacity _____ 150 _____ gallons per minute.

f. Depth to water _____ 56.68' static _____ feet below land surface

g. Date well completed _____ 02 _____ 24 _____ 73 _____
 (Month) (Day) (Year)

9. The place(s) of use of water. If same as Item 3, check this box ☒
SE $\frac{1}{4}$ 40 Acres Section 17 Township 40N Range 4W
SW $\frac{1}{4}$ 40 Acres Section 16 Township 40N Range 4W
SE $\frac{1}{4}$ NE $\frac{1}{4}$ 40 Acres " 8 " 40N " 4W

10. Attach additional sheet if necessary.

11. DATE 06/09/82 SIGNATURE OF REGISTRANT William M. H.



United States Department of the Interior

NATIONAL PARK SERVICE
Pipe Spring National Monument
HC 65 Box 5
406 N. Pipe Spring Road
Fredonia, AZ 86022-9600



L54 (PISP)

Ms. Kathy Wilson
MS 420
Bureau of Indian Affairs Regional Office
P.O. Box 10
Phoenix, AZ 85001

Dear Ms. Wilson:

Thank you for the opportunity to meet with you and the Kaibab Band of Paiute Indians yesterday to make further headway on framing a new cooperative agreement regarding the National Park Service (NPS) operated and maintained water system on the Kaibab Paiute Reservation.

I have rewritten paragraph 8 of the draft agreement as follows:

Each party shall have independent metering responsibilities. Each party is encouraged to install adequate metering devices to regularly track water use and consequently, better enable the location of leaks on the system, and the most efficient conservation of the water resource.

The Service agrees to maintain a meter that will measure water production at the well, and install and maintain meters at other locations to measure total water use at the joint NPS-Kaibab Band visitor center complex, total NPS use on the Monument, and Monument residential use as a portion of total NPS use.

The Tribe agrees to install and maintain a meter that will measure total regular tribal use from the system, maintain the meter on the North Calf Pasture line referenced in paragraph 13, and install and maintain a meter that will measure emergency deliveries to Kaibab and Juniper Villages. Furthermore, the Tribe is encouraged to install and maintain meters at other use locations, such as Red Hills Village, the tribal headquarters building, and the tribal service station, to enable the aforementioned maintenance and conservation goals.

Each party shall make available to the other, upon request, a map and description of meters and metering locations on the system. Each party shall allow access to its meters related to the system to the other party.

Each party agrees to read and record water use data from the meters on the system in its area of responsibility on a quarterly or more frequent basis, and to provide a report containing this data to the other party at the end of each calendar year.

I believe this rewrite captures what we discussed in the meeting.



I have also reviewed NPS policy regarding delegated authority for signature of such agreements. As Superintendent of the Monument, I have general signature authority for the agreement. As the agreement involves the regular transfer of funds from the NPS to the Tribe, and the possibility of transfer of funds from the Tribe to the NPS, the cooperative agreement will also require the signature of our Contracting Officer, Malinda Flatray, at Zion National Park. Consequently, please add an additional signature line labeled as follows:

NATIONAL PARK SERVICE
ZION NATIONAL PARK

By: _____ Date: _____
Malinda Flatray, Contracting Officer

We look forward to seeing the water rate appraisal and your revised final draft as soon as possible. At that time, I will forward the final draft to our Solicitor, Kevin Jones, for additional review and a memorandum indicating approval from his office. With his approval and no need for additional changes, and concurrence regarding the rate to be charged the NPS, we will be ready to execute the agreement.

Thank you for your participation in the formulation of this important continuing agreement between the NPS and the Tribe.

Sincerely,



John W. Hiscock
Superintendent

cc:

Carmen Bradley, Chairperson, Kaibab Band of Paiute Indians
Kevin Jones, DOI Solicitor
Malinda Flatray, Contracting Officer, ZION



09-23-2004 2:34PM

Pipe Spring National Monument

No. 2009 P. 1



National Park Service
U.S. Department of the Interior

Pipe Spring
National Monument

HC 65 Box 5
406 North Pipe Spring Road
Fredonia, Arizona 86022

928-643-7105 phone
928-643-7583 fax

Pipe Spring National Monument

To: Chuck Pettee
Fax number: 970-225-9865
From: John Hiscasek
Date: 9/23/04
Pages to follow: 4
Subject: BIA Appraisal of NPS Well Water Value

Comments:

Under 1972 agreement w/ Tribe we pay
\$33/acre ft. for NPS use.

We of course pay all costs of
production (elect, maint, operations, treatment
& BIA appraisal does not appear to
take this into account.

What might you have on pure
value of water in west?

Thanks!

EXPERIENCE YOUR AMERICA™

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Sep-23-2004 3:54PM

Pice Spring National Monument

No-2009 P. 2

TELEFAX

BUREAU OF INDIAN AFFAIRS
WESTERN REGIONAL OFFICE
Branch of Land and Water Resources, MS 420/430
P.O. Box 10
Phoenix, AZ 85001

TELEPHONE NO.: (602) 379-6789 * FAX NO.: (602) 379-6835

DATE: 8/6/04

Number of Pages (Including Cover Sheet): 4

TO: John Hescock

LOCATION: _____

FAX NO.: _____

FROM: Churlon

TITLE: _____

DEPARTMENT: _____

TELEPHONE NO.: _____

MESSAGE: The Appraisal Report

Thanks for your para. & layout.

IRRIGATION *WATER RIGHTS* SAFETY OF DAMS* *LAND*

PHOENIX AREA OFFICE

KAIBAB INDIAN RESERVATION

MARKET ANALYSIS

EVALUATION OF THE WELL HEAD RATE FOR WELL WATER WATER DELIVERED BY THE PAIUTE TRIBE TO NATIONAL PARK SERVICE PIPE SPRINGS NATIONAL MONUMENT

PURPOSE:

To determine if the rate of \$33 per acre foot of well water, that has been paid in the past by the National Park Service, is current Fair Market rent. The water is delivered from well B(40-4) 5cdd about 2 miles North of Pipe Spring National Monument. This report has been prepared at the request of the Phoenix Area Office Area Director. Anyone else is an unintended user of this report.

SCOPE:

The Evaluation is used for in-house exchanges of information and meets the minimum standards for a Market Analysis under Standards 4 and 5 of the Uniform Standards of Professional Appraisal Practice (USPAP). This Evaluation is an investigation of the well water market in an attempt to determine an indicated well head rate (value of water at the well site). The rate expressed here is based on local and regional market conditions. The Evaluation is appropriate since information is available as to the cost of domestic or culinary water (water that can be used for human consumption) at the well site. **Two different rental rates will be indicated in the conclusion. It is not known which party is responsible for the payment of electricity charges, if the tribe is responsible an additional \$35 to \$50 should be added on to the rental value of the well site. If the National Park Service is paying for the electricity the electric charges should not be added to the per acre foot charges (see conclusion).**

LOCATION OF THE WELL SITE:

The well is located 2 miles north of the Pipe Spring National Monument on the Kaibab Indian Reservation in Northern Arizona or 18 miles West of Fredonia, Arizona. Colorado City which is located on the line between Utah and Arizona is located about 14 miles to the Northwest. The well site is reached by taking paved Highway 389 approximately 15 miles west from Highway Alt. 89 at Fredonia. At Pipe Spring Monument go North towards Moccasin two miles to the subject well.

DATE OF INSPECTION:

Due to road conditions the subject was not physically inspected. Location was determined by information received from Tribal Administrator Angelita Bullets of the Kaibab Band of Paiute Indians Tribal office at Pipe Springs, Arizona.

MARKET DESCRIPTION:

The lessee, National Park Service, uses the water from this well for supplying it's Pipe Springs National Monument visitors center with culinary water. The National Park Service under agreement with the Paiute Tribe originally drilled this well back in 1972. Water is delivered by buried pipe to the visitors station at Pipe Springs National Monument.

EXTENT OF THE EVALUATION PROCESS:

The PAO Appraisal staff has contacted various water sources including City Engineers, Irrigation Districts and water bottlers to assist in evaluating the cost of an acre foot of water. The evaluation consisted of determining what the cost of the water would be delivered at the well head.

THIS EVALUATION IS BASED ON RECENT DATA AND SUPPORTING MATERIAL ON FILE IN THE PHOENIX AREA OFFICE (PAO), APPRAISAL SECTION.

EVALUATION:

A market search for comparable companies who deliver water at well sites was made. The previous lease was based on a per acre foot of delivered water and this report will use the same basis of comparison. An acre foot of water as defined in the second edition of THE DICTIONARY OF REAL ESTATE APPRAISAL states "A VOLUME OF WATER EQUAL TO THE AMOUNT REQUIRED TO COVER ONE ACRE OF LAND TO A DEPTH OF ONE FOOT; EQUAL TO 325,850 GALLONS OR 43,560 CUBIC FEET OF WATER". Three of the sources of information, namely the City of Kanab public works manager Mr. Keith McCalister and Cloyd Chamberlin at Kaneco Products in Kanab, Utah were interviewed January 7 and 8, 1998 and Chris Sanquigi of Arctic Ice and Water, a privately owned company, in Apache Junction, Arizona was interviewed on February 12, 1998. The balance of the information was obtained from files located in the Phoenix Area Office. Even though this information is older the information still remains consistent with the newer information developed in January and February 1998.

Water King in Parker, Arizona, a privately owned business, in 1992 purchased water from the city at \$0.0003 ~~cents~~ per gallon for the first 5,000 gallons and \$0.0001 ~~cents~~ per gallon for any amount over 5,000 gallons. This breaks down to \$32.58 to \$97.74 ~~cents~~ acre foot. After purchasing the water they purified the water by reverse osmosis and sell it retail for \$0.25 ~~cents~~ per gallon.

→ \$33.59/AF if use their rate structure

Arctic Ice and water, a privately owned company, located in Mesa, Arizona pumps water from a 900' deep well, with water being pulled from 700'. The raw product cost at the well head is ~~2002~~ ^{cents} per gallon or \$65.16 per acre foot (this includes \$2.50 per acre foot payable to the state for the withdrawing of a natural asset). The water is then sold 2000 gallon tanks at ~~10 cents~~ ^{\$0.001} per gallon. This information was obtained from Chris Sanguigi on February 12, 1998 in Apache Junction, Arizona.

On January 7, 1998 I interviewed Cloyd Chamberlin of Kaneco Products in Kanab, Utah. Mr. Chamberlin (telephone numbers 435-644-2977 or 435-644-2371) is the Manager of the Kaibab Irrigation Water District. For one acre foot of irrigation water an individual must purchase 2 shares at \$200 per share or a total of \$400.00. This would give him the right to receive 1 acre foot of irrigation water per year. After the initial year his cost would be \$14.50 per share or \$29.00 per 1 acre foot of water. The \$29.00 is for maintenance and upkeep of equipment.

On January 8, 1998 I interviewed Mr. Keith McCalister who is the Public Works Manager of the City of Kanab, Utah. He said that the raw water cost per 1,000 gallons was about \$0.12 ~~cents~~. This indicates about per \$39.12 per acre foot.

CONCLUSION:

In reviewing and analyzing the above information, it is concluded that an appropriate rental, per acre foot, should be in the range of \$45 to \$60 if the National Park Service is paying for the electricity to the well. If the tribe is paying for the electricity the annual rent should reflect this fact and the overall rental rate should be \$75 to \$110 (See Scope of Appraisal page #1).

RECOMMENDED THAT \$45 TO \$60 PER ACRE FOOT, WOULD BE SUFFICIENT COMPENSATION FOR WATER USE, IF THE NATIONAL PARK SERVICE IS PAYING ELECTRIC CHARGES. IF THE TRIBE IS PAYING THE ELECTRIC CHARGES A FAIR ANNUAL RENT WOULD BE \$75 TO \$110 PER ACRE FOOT.

February 23, 1998
DATE

4/7/98
APPROVED

Patrick J. Murphy
Patrick J. Murphy, Appraiser

Gabriel D. Sneezy
Gabriel D. Sneezy, MSA, MFLA
Area Chief Appraiser
Certified General Appraiser
Arizona #30482

THIS IS NOT AN APPRAISAL REPORT. IT DOES NOT CONTAIN THE DOCUMENTATION REQUIRED IN AN APPROVED APPRAISAL REPORT.

Author: John Hiscock at NP-PISP
Date: 09/16/1999 10:21 AM
Priority: Normal
TO: Ron Everhart at NP-DENVER
CC: Don Falvey at NP-ZION, Chuck Pettee at NP-WASO-WR, Dan Kimball at NP-WASO-WR
Subject: Kaibab Paiute Water Agreement

Ron:

Did get to speak with Don this morning on letter to the Tribe.
I'm attaching, just FYI the copy finally sent to Tribe.

It was a conversation with Tribal Chair Carmen Bradley, the other day that motivated this. I asked her the status of the Tribe's review of the now, 2.5 yr. old draft replacement agreement. She informed me that the draft was now with the Tribe's new attorneys and she wasn't sure when they would be done reviewing and advising on it. I told her that we needed some sort of concurrence in continuing to operate (and spend govt. funds) under the provisions of the old agreement in the interim. She suggested an indeterminate interim extension as opposed to the three month extensions we have been trying to keep in place. Given our poor negotiating position there is no problem with extensions while we wait (extensions may actually be some of the better news we could receive).

One other important bit of news that came from our conversation. She said that the Tribe's new attorneys are proposing to look into the bigger water picture at PISP. Not only looking at water agreement with its exchange of NPS utility system maint. for use of the Tribe's 1/3 of spring flow, but looking at the underlying basis of NPS and tribal water rights. This proposition, of course, opens a pandora's box of complicated and unclear issues. (I get the definite impression that this is the attorneys' proposal, and not necessarily at the Tribe's request, however the Tribe is acquiescing in the path the attorneys are following.)

John

Forward Header

Subject: Kaibab Paiute Water Agreement
Author: John Hiscock at NP-PISP
Date: 9/15/1999 4:42 PM

If at all possible, I need your immediate review of the attached letter. I've promised such a letter to Chairperson Bradley by 9:00 am Thursday morning. If I don't hear from you I will proceed with the attached, or slightly modified version, BUT, I'd love to have your input, or concurrence.

John

L54 (PISP)

September 15, 1999-

Ms. Carmen M. Bradley
Chairwoman
Kaibab Band of Paiute Indians
Tribal Affairs Building
HC 65 Box 2
Pipe Spring, Arizona 86022

Dear Ms. Bradley:

We hereby request the Tribe's concurrence in an updated interim extension of the water agreement of April 13, 1972, and supplementary amendment of March 1996 (copies attached). As you are aware, the National Park Service (NPS) and the Tribe have concurred in previous interim extensions of the agreement, since its expiration on April 13, 1997, while the Tribe and its advisors are reviewing a mutually rewritten, suggested replacement agreement (copy attached). The previous interim extensions have been for three months at a time. We are amenable to another three month extension, or agreement to an indeterminate extension subject to end automatically upon adoption of a new, replacement, agreement between the NPS and Kaibab Paiute Tribe.

The NPS must have formal concurrence in an ongoing extension in the provisions of the old agreement, or a new agreement, in place, in order to: (1) legitimize the expenditure of National Park Service funds on the joint water system outside of Pipe

Spring National Monument; and (2) allow the continued use of the Tribe's Calf Pasture water line across Pipe Spring National Monument, which was only authorized pursuant to the existence of the old agreement. The investment which the National Park Service makes on a both a routine and as needed basis to the water system that benefits the Tribe and the Monument, was detailed in our former letter of July 15, 1997 (copy attached).

We would certainly prefer adoption of a new agreement - as previously suggested, or modified by mutual consent. We request and encourage the Tribe to expedite its associates' ongoing review of the suggested agreement. Again, however, in the interim, we request the Tribe's concurrence in an extension of the terms of the old agreement.

John W. Hiscock
Superintendent



IN REPLY REFER TO:
154

PISP

United States Department of the Interior

NATIONAL PARK SERVICE
Southern Utah Group
1552 West 200 North
P. O. Box 749
Cedar City, Utah 84720

May 9, 1972

INITIAL AND DATE	
Director, MWR	
Director's Secretary	
Assoc. Dir., Mgmt.	
Assoc. Dir., Prof. Sup.	
Park Operations	
Coop. Activities	
Operations Eval.	
Prog. & Budgeting	
Finance & Control	
Org. Dev. & Man.	
<i>Water Resources</i>	
Action taken & date	

Memorandum

To: Director, Midwest Region

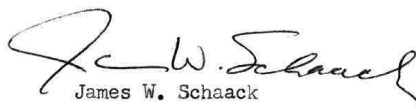
From: Acting General Superintendent, Southern Utah Group

Subject: Water Use Agreement, Pipe Spring National Monument

Enclosed is the final, signed agreement between the National Park Service and the Kaibab Band of Paiute Indians regarding water services and water lines related to the Kaibab Reservation at Pipe Spring National Monument. This copy is for your records.

We are retaining a copy at this office. There also will be a copy on file at Pipe Spring National Monument. Two copies are being forwarded to the Kaibab Band of Paiute Indians for their records.

This agreement includes the addendum "Exhibit A" showing the layout of the water system and reservoir in relation to the Indian Reservation and to the National Monument.


James W. Schaack

Enclosure

cc:
Superintendent, PISP



National Parks Centennial 1872-1972

AGREEMENT

THIS AGREEMENT, made and entered into this 13th day of April 1972, between the Kaibab Band of Paiute Indians of the Kaibab Reservation, Arizona, organized pursuant to Section 16 of the Indian Reorganization Act of June 18, 1934 (48 Stat. 984), as amended, hereinafter referred to as the "Tribe," and the United States National Park Service, hereinafter referred to as the "Service."

W I T N E S S E T H :

WHEREAS, the waters of Pipe Springs within the boundary of Pipe Springs National Monument are now being used by both of the parties hereto under previous agreement; and

WHEREAS, increased needs of both parties have been given consideration, and with the permission of the Tribe the Service has drilled a well on tribal lands two miles north of Pipe Springs National Monument; and

WHEREAS, it is deemed advisable to enter into an agreement for the use of the waters from Pipe Springs and from the well so drilled in a manner to meet the needs of both parties,

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements hereinafter contained, and the performance thereof by the parties hereto, the parties do hereby mutually covenant and agree as follows:

1. It is mutually understood and agreed that this contract shall become effective on execution thereof and shall extend for a period of twenty-five years (25) and, at the option of the Tribe, may be extended for an additional period of twenty-five (25) years, upon giving notice to that effect to the other party to this agreement at least thirty (30) days prior to the date of such expiration.

2. The Service agrees to construct a water system which shall include a pump station, approved water treatment plant, an adequate water storage tank and a six inch water line or larger from the tank to Pipe Springs National Monument; the Service further agrees to provide Ts and water meters at five locations for service to tribal facilities. The locations of such Ts shall be determined by further agreement of the parties hereto. The Tribe agrees that the Service may have a right of way with full

rights of ingress and egress during the term of this agreement for the construction, maintenance and use of the water system as described on the attached plat which is marked Exhibit "A" and by reference made a part of this agreement.

3. The Service agrees to operate, maintain and repair the water system constructed as aforesaid at its sole cost and expense.

4. The Tribe agrees that the Service may use the present one-third of the output of water of Pipe Springs now being used by the Tribe so long as this agreement shall remain in force, except as hereinafter provided in paragraph No. 12 and 14.

5. The Service agrees that in lieu of the waters of Pipe Springs to which the Tribe has hereby granted exclusive use to the Service, the Service will furnish to the Tribe 7,884,000 gallons of water per year from the water system constructed pursuant to the terms of this agreement at the sole cost and expense of the Service and without any charge to the Tribe.

6. The Tribe agrees to pay the actual cost of production rate for all water used by the Tribe during any one year in excess of the amount to be furnished to the Tribe without cost as stated in the preceding paragraph. Cost of production shall be determined by prorating the cost of (a) electricity, (b) chemicals, (c) maintenance of pump, plant and main line with appurtenances, and (d) seven year amortization of the pump. The cost of production will be re-evaluated at the end of each two year period.

7. The Service retains the ownership in the water system as constructed by it, but in the event of termination of this agreement, the Tribe shall be given the right of purchase of the equipment at the then ~~appraised market value~~ before the Service shall have the right to remove the same from tribal property.

8. It is mutually agreed that the waters of both the well and Pipe Springs will be economically used with the objective of conserving the same, and obtaining the most feasible use therefrom. Water from the well shall not be used for commercial agriculture. In the event rated production of the well becomes less than 15 gallons per minutes, the deficit of the amount agreed to be furnished by the Service to the Tribe shall be made available to the Tribe from Pipe Springs.

9. The Service agrees to meter all water and annually bill the Tribe for water in excess of the specified amount as hereinbefore provided.

10. The Service agrees to pay a rental charge for the use of water from the well by the Service at the rate of \$33 per acre foot, payable annually. The rental charge does not apply to any water used by the Tribe from the well.

11. The Parties each agree to make prompt payment upon receipt of billing from the other party.

12. The Service agrees that it will maintain the pool now constituting a part of the Pipe Springs Monument attraction and in the event water used by the Service from Pipe Springs is less than the output of said Springs, the Service agrees to make the excess water available to the Tribe through the Tribe's present line and storage system.

13. The Tribe at its own cost and expense may install a pipeline connecting the water well lines with the Kaibab Village system for emergency purposes only.

14. The Tribe would like to retain one gallon per minute flow from Pipe Springs for Livestock purposes which the Tribe will install at their own expenses.

KAIBAB BAND OF PAIUTE INDIANS
OF THE KAIBAB RESERVATION, ARIZONA

By Bill Jom
Tribal Chairman

NATIONAL PARK SERVICE
By Frank J. Durgin
Regional Director

APPROVED:

21 May 1972
acting Superintendent, Hopi Indian Agency
Bureau of Indian Affairs



IN REPLY REFER TO:

154

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Southern Utah Group
1552 West 200 North
P. O. Box 749
Cedar City, Utah 84720

July 22, 1970

1. Bennett
2. [unclear]
3. [unclear]

Memorandum

To: Director, Southwest Region
From: General Superintendent, Southern Utah Group
Subject: Resolution passed by Kaibab Paiute Tribe re Well near
Pipe Spring National Monument

Enclosed is a copy of the subject resolution. It is my understanding that final approval has been given to it by the Bureau of Indian Affairs.

The story behind this resolution is this: The Paiutes are about to receive one million dollars as a result of the aboriginal land settlement, and are anxious to construct a variety of tourist facilities near Pipe Spring, taking advantage of the Monument's presence as a drawing card. They have just finished a rather elaborate Council building near the Monument, and are proposing the immediate construction of a modern campground, some additional residences, and a Visitor Center.

And because of all of this, the National Park Service must take positive action to preserve the historic integrity of the Monument. The Paiutes' original plan called for virtually surrounding the Monument with the proposed developments, without too much regard for the National Park Service.

Water from the spring, some 30 to 45 gallons per minute (dependent upon climatical conditions), is now divided three ways by Secretarial order - one-third to the National Park Service, one-third to the Indians, and one-third to the local stockmen. The National Park Service generally has "appropriated" more than its share simply because the other two parties had no pressing need for their authorized portion. The picture is now changed, however, and the spring cannot produce all the water needed.

Through several meetings with the Indians, we are nearing important possible agreements:

1. A land use program where the historical integrity of the Monument can be preserved and protected.
2. A land lease or land exchange program whereby the National Park Service will acquire or manage certain lands of importance to the story of man and Pipe Spring.
3. A joint-use Visitor Center.
4. The development of a water system to meet the needs of the area so that all spring water can be made available for maintenance of the Monument.

The attached resolution relates to item No. 4. We must develop an additional source of water to protect ourselves, and the only logical location for a well is in 2-Mile Wash, east of the Monument. We cannot think in terms of a well near the spring because of possible adverse effects.

We consider the proposed well of utmost importance. Our survival at Pipe Spring depends upon it, and we certainly hope that nothing happens to prevent exploratory drilling.

/s/ Karl T. Gilbert

Karl T. Gilbert

Enclosure

cc:
Director, Western Service Center ✓

RESOLUTION
Kaibab Paiute Tribe
No. _____

WHEREAS, the National Park Service has requested permission to drill
one or more test wells in Two Mile Wash, north of State Route 389, and
WHEREAS, the National Park Service has proposed entering into an agree-
ment with the Kaibab Paiute Tribe regarding the use of said well,
should an adequate water supply be found, and
WHEREAS, said agreement would reflect both Tribal and National Park Service
needs in the vicinity of Pipe Springs,
WHEREAS, it is to the best interest of the Tribe to cooperate with the
National Park Service in developing a supply of water sufficient
for both the National Park Service and the Tribe,
THEREFORE, BE IT RESOLVED that permission is hereby granted to the National
Park Service to drill one or more test wells, as needed to locate an
adequate supply, in the vicinity of the Two Mile Wash, and
BE IT FURTHER RESOLVED that this permission include the right to cross
Tribal lands with vehicles and equipment and do all things necessary
to complete the well drilling and testing, and
BE IT FURTHER RESOLVED that should adequate water be found the Chairman of
the Tribal Council is hereby authorized to prepare an agreement with
the National Park Service regarding the use of the well and submit the
same to the Tribal Council for their consideration.

C E R T I F I C A T I O N

I hereby certify that the foregoing Resolution was regularly adopted by the Kaibab Paiute Tribal Council on the 17 day of June, 1970 by a vote of 4 in favor and 0 opposed, the Chairman not voting after full and free discussion on the merits.

Bill Tom

Bill Tom, Chairman
Kaibab Paiute Tribal Council

ATTEST:

Theoria Lomahquahu

Theoria Lomahquahu, Secretary
Kaibab Paiute Tribal Council

APPROVED:

Homer M. Gilliland, Supt.
Hopi Indian Agency

Pipe Spring National Monument

Station Description

NPS Culinary Well

NE1/4,NW1/4, Sec. 8, T.40 N.,R.4 W.

History of Well - The well was drilled in 1971 on land managed by the Kaibab-Paiute Indian Nation. At the request of NPS, the USGS conducted an aquifer test. The results of the pump test and drilling of 5 other test holes are reported in: McGavock, E.H. 1974, Results of Test Drilling Near the Pipe Spring National Monument, Mohave County, AZ. This USGS Memorandum Report is available from the NPS Water Resources Division Library. A trip report in April, 1971 by Donald Barrett, NPS Hydrologist describes the completion of the well. Pump discharge records begin in 1973 by Mel Heaton, NPS Maintenance personnel. The water pipeline supplies several tribal facilities as well as the NPS Visitor Center, residences, and orchards.

Purpose of Well - The well is to supply the culinary and irrigation needs of the Monument and nearby tribal buildings.

Geohydrology of Well - The well is 205 ft. deep, drilled to a 8-inch diameter, with a 6" perforated casing from 175 ft. to 205 ft. The producing formation is Navajo Sandstone and initial static water level was 56.68 ft. below land surface. The location was chosen to be a site where the Navajo Sandstone could be tested midway between Moccasin Spring and Pipe Spring. The presence of the Sevier Fault to the east is believed to have a strong influence on the aquifer.

Management of Well - The well head is contained in a pump house where chlorine is added. A 4-inch water line is connected from the well to a 500,000 gallon reservoir. An automatic control system fills the reservoir roughly on a two day cycle. A two-mile pipeline from the reservoir supplies the Monument and Tribal buildings with flow meters located at major service connections.

Data Record - Initial well construction and test data are reported in McGavock (1974) and Barrett (1971). Pump discharge flow meter readings were recorded by park staff yearly from 1973 to 1982 and monthly thereafter. A digital recorder and pressure transducer was installed by Inglis, NPS Hydrologist, in May, 1990 and continues to present date (April, 1992)

Collection - Flow meter data was collected from a Stirling 1-1/2 inch flowmeter from 1973 to June 1989 when it was replaced by a Rockwell flow meter. Water level data was collected by Omnidata Easylogger Field Unit with a Druck 10-psi Pressure transducer and 100 ft. of cable. Data are recorded every 6

hours and downloaded every 3 to 4 months.

Storage - Raw data is stored and manipulated in PC based Lotus spreadsheets at the NPS-WRD Fort Collins, CO Office. Water level plots and some hard copy printouts from the spreadsheets are kept in "Hydrologic Folders" located in the NPS-WRD Library. All geohydrologic information pertaining to this water source as well as maps, water quality and other data are kept in this file. Construction blueprints and water utility information are kept at the NPS Denver Service Center. The original meter records are maintained at the park.

Brief Analysis - Initial monitoring results are published in: Inglis, R.R. 1990, Water Resources Data of Pipe Spring National Monument Area, Arizona, 1977-1989, Technical Report NPS/NRWRD/NRTR-90/02. Plots of recent water level data show pumping drawdown and recovery on two to three day cycles. Typical drawdown is 13 ft. with very quick recovery to within 6 inches of "static levels". Over longer periods of record, "static" water levels are seen to vary slightly, possibly due to seasonal climate or seasonal water demand. Increased pumping in May and June of 1991 coincides with a decline in the "static" levels in the well.

Questions and Ideas - It is desired to know more about the aquifer supplying this well. 1) The recharge area and rate are unknown. 2) The effects of the other wells in the culinary well field are unknown. 3) The effects of present or increased rate of pumping the NPS Culinary Well on the flow of Pipe Spring is unknown.

A basin-wide groundwater model would provide many answers but would depend on the cooperation of all water users in the area.

PIPE SPRINGS NATIONAL MONUMENT

Culinary Well No. 1 Monitoring Station

Background

Culinary Well No. 1 was drilled by the Kiabab Piate Indians Tribe after NPS drilled the discovery well in 1971. Well no. 1 apparently did not produce satisfactory amounts of water and was replaced by a larger, deeper well (No. 2) about 1985. Steve Turner of the Tribal Housing Authority, reported that Well No. 1 was used as an observation well for the pump test of Well No. 2 and showed little drawdown.

The purpose of this monitoring station is to record water levels in this well field on a year around schedule and compare the results with older water table elevations at this location to determine if a regional decline in groundwater levels is taking place.

Installation

Well No. 1 has an 8" steel working casing which extends 2.5 to 3 feet above the ground surface. The well is collared in loose, fine sand. The 8" casing is topped with a sealed iron cap equiped with a weather-proof port providing access for electrical lines from the conduit along side of the casing. A 1.5" threaded iron plug in the top of the cap was removed and the conduit for the monitoring probe was attached to this opening (see diagram). Approximately 10' below the top of the casing is a flat plate with two rectangular holes which is part of the pitless adapter. Electrical power cables pass through one hole and the Druck probe and cable were passed through the other. The water level was measured at 83.7' from top of casing on the morning of 8/21/86 with an electrical probe. The Druck monitoring probe was set 40.0' below static water level and two preliminary test runs were conducted to check the operation of the equipment and determine the magnitude of cable sag.

Future Course of Action

Periodic visits to this site are necessary for recovery of the data, maintenance of the equipment and verification of the proper operation of the station. Items to be checked include, cables (for vandalism), and conduit (for breakage, and weather damage).

Data Logger Specifications

Probe

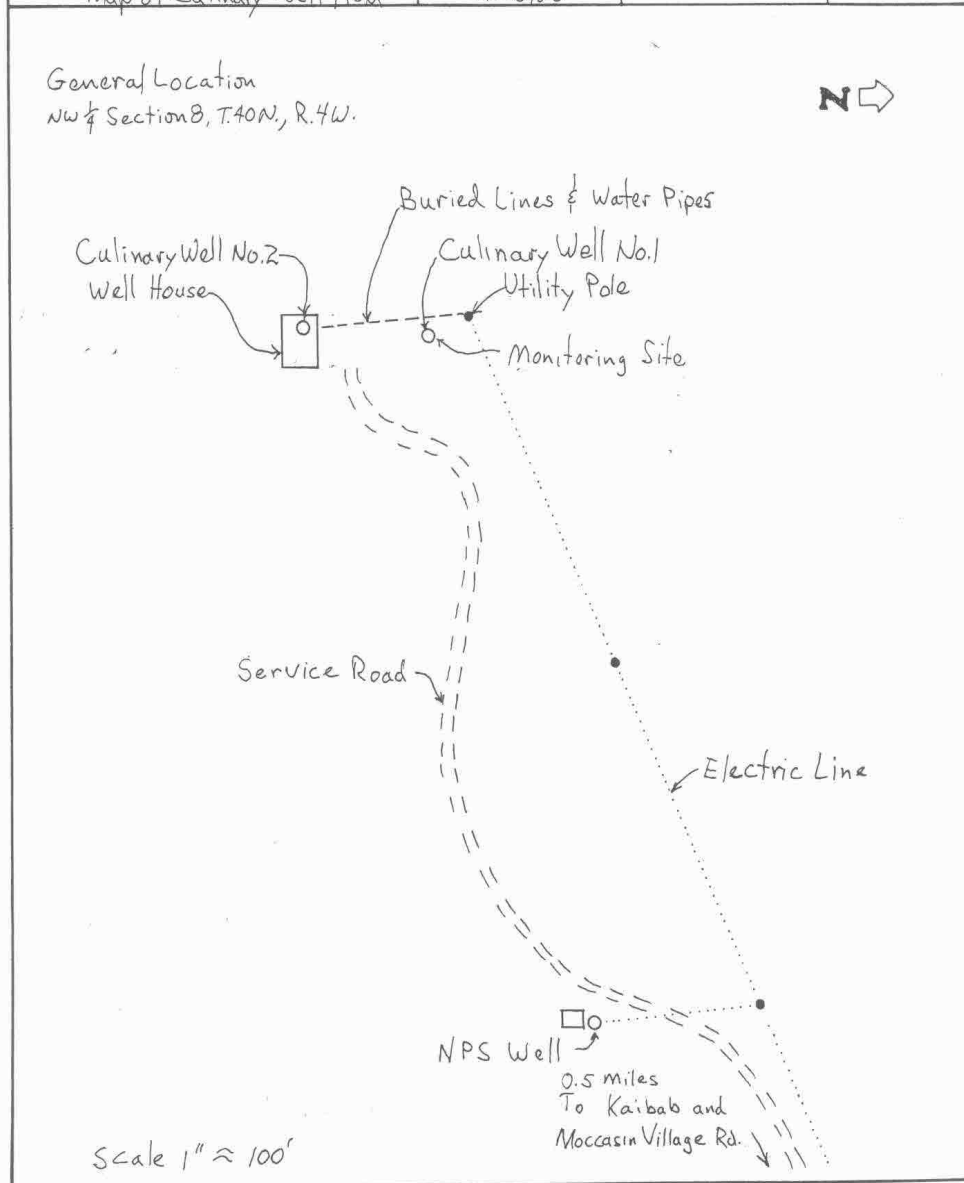
Type - Druck Pressure Transducer 100 psi
Range - 0'-230' at 0.1' intervals
Cable length - 400'
Scale - 100.99

Data Logger

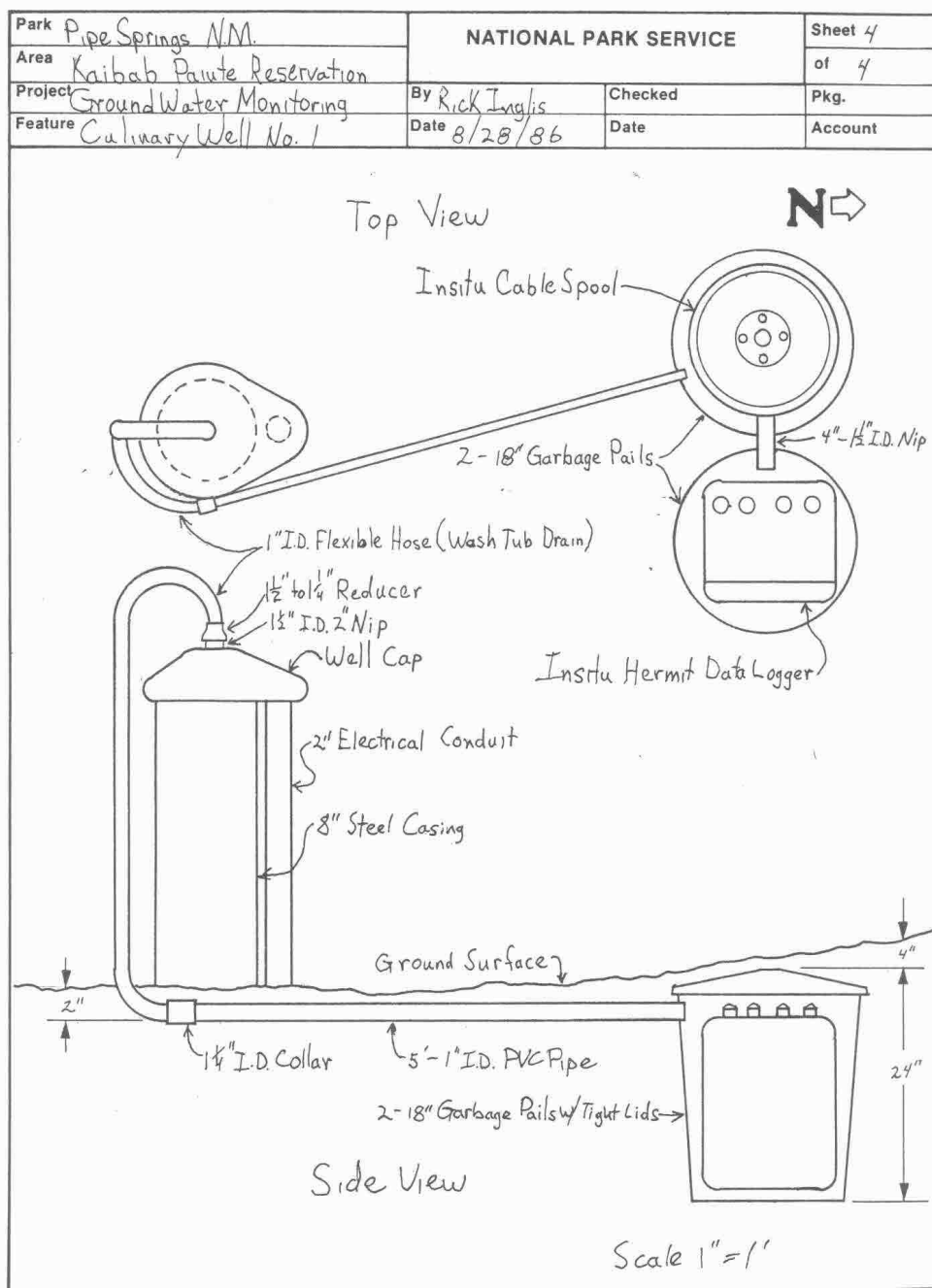
Type - Insitu Hermit Model SE1000B
Test - #2
Scan - 6 hours
Offset - 0.0'
Display - English units top of casing (ENTOC)
Reference - 83.7'
Time zone - Arizona STD Time
Starting time - 12:00 8/22/86
Battery life - 4 years

FORM D S C - 44

Park	Pipe Springs N.M.	NATIONAL PARK SERVICE		Sheet 3
Area	Kaibab Paiute Reservation			of 4
Project	Ground Water Monitoring	By Rick Inglis	Checked	Pkg.
Feature	Map of Culinary Well Field	Date 8/28/86	Date	Account



FORM D S C - 44





United States Department of the Interior

NATIONAL PARK SERVICE

Pipe Spring National Monument
Moccasin, Arizona 86022

Memorandum for:
W. H. CFA

June 23, 1972

Memorandum

To: Director, Midwest Region
From: Superintendent, Pipe Spring National Monument
Subject: Negative Declaration, New Water System and other Environmental Statements

Explanation and Description of Action

The new water system is located in sections 5 - 6 & 17 T. 40 N. R. 4 W. The actual water well is located in section 5, a distance of 10,900 feet north of Pipe Spring National Monument. The entire system, with the exception of 737 feet of 6" underground water line and 31 fire hydrants is located within the Kaibab Paiute Indian Reservation and is fully covered by an agreement between the Paiute Tribe and the National Park Service, dated April 13, 1972. (See attached copy.) The system consists of the following:
Water well complete with 15 HP electric pumping unit, chlorination system and pump house.

Dimensions of Well

Drill bit:	3 inches
Depth:	205 feet
Blank Casing:	3 inch ID surface to 175 feet
Joint Casing:	6 inch ID surface to 175 feet
Perforated Casing:	6 inch ID 175 ft. to 205 ft.

Hydraulics

Geological formation:	Navajo sandstone
Well type:	Artesian
Static Level:	56.68 below LS
Transmissibility:	126 gpm /ft. (182,000 gpd/ft.) at 150 gpm
Recommended pump setting:	150 feet
Producing water level @ 150 gpm:	68 feet
Estimated producing water level @ 200 gpm --	70 feet



National Parks Centennial 1872-1972

Load Tests

<u>Load</u>	<u>Pumping Rate</u>	<u>Draw Down</u>	<u>Duration</u>
1	100 gpm	8 feet	2 hrs.
2	129 gpm	10 feet	2 hrs.
3	150 gpm	12 feet	20 hrs.
4	250 gpm	13 feet	1 hr.

Recovery rate was rapid. In the first minute, the water level rose to 43.9 or to -2.2 ft. of the original static level (56.63 ft.) After five minutes, the water level was at -0.92 ft. and at the end of an hour, the water level stood at -0.32 ft.

Balance of System

500,000 gal. underground cement reservoir
 2613 ft. 4" C.I. water line
 2214 ft. 6" C.I. water line
 Valves, meters, fire hydrants and any other equipment required to complete the system.

2. Purpose of Action

On completion, the new water system will supply water to the joint use Visitor Center - Tribal Arts and Crafts Building, a new 70 unit Paiute operated campground, the Paiute housing area, comprising approximately 15 units, the Paiute Tribal Headquarters buildings and possibly a proposed 44 unit Paiute operated motel complex. It will also restore to Pipe Spring National Monument the use of an additional 15 gallons of water per minute that has been used by the Paiute Tribe for many years, thus placing this historic area in a better position of operating the historic complex similar to that of the 1880 period as designated by the Master Plan for this area.

3. Discussion of Environmental Impact

With the exception of 737 of 6" underground pipe line plus 2 fire hydrants, the balance of the system is to be located on the Paiute Indian Reservation. The water well is located in a small side canyon, a distance of 10,900' from the Monument proper, and is not visible to the public. With the exception of a small pump house located directly over the well, the balance of the system is to be underground, including the 500,000 gallon cement reservoir. No trees or other natural resources are to be disturbed and after the first rain, the desert vegetation will soon cover any scar made by trenching for the pipe line.

This system is being engineered and financed by the National Park Service and will supply water for the Paiute economic development now in progress, as well as the needs of the Service.

4. Basis for Negative Declaration

On the basis of the given information, also as there will be no significant adverse impact on the present or future environment as a result of the action, I recommend that no environmental impact statement be prepared for this project.

No other projects are planned for the Pipe Spring area for FY 73 that would require an environmental impact statement.

Recommended By:

Bernard G. Tracy
Superintendent

Date

6/23/72

Concurred in By:

J. Leonard Valz
Director, Midwest Region

Date

7/5/72

D52(WSC)AFPG

June 18, 1971

LETTER OF ACCEPTANCE

Ballard Well Drilling
P. O. Box 553
243 W. 300 South
Hurricane, Utah 84737

Gentlemen:

A final inspection of the work under your Contract No. 4970P10466, Drilling and Developing Test Well(s), Pipe Springs National Monument, Utah, was conducted on March 23, 1971. Those participating were Tim Ballard on behalf of the Contractor and Superintendent Bernard Tracy on behalf of the Government.

The inspection revealed that all work was completed in accordance with the plans and specifications on March 23, 1971, and the Contract was substantially completed on that date with the exception of missing weekly payrolls and insurance certificates, the last of which was received on June 14, 1971. Accordingly, all work under the Contract is accepted as of March 23, 1971 subject to the terms and conditions of the contract.

Sincerely yours,

(Sgd) Donald S. Marley

For: LeRoy E. Marcroft, Chief, Division of
Procurement and Contracting, Property
Management, General Services, and
Contracting Officer

cc:
Assoc. Dir., Prof. Svs., WASO (2)
Director, Southwest Region (2)
Gen. Supt., Southern Utah Group
Supt., Pipe Springs NM
Proj. Supt., Barrett (WSC)LWW
WSC, LWW *6/23*
WSC, Finance
WSC, Procurement
File, Reading

BARRETT
WITUCKI
KITCHI
BOWEN

LS4(WSC)LWW
PISP

April 2, 1971

Memorandum

To: Director, Western Service Center
Through: Chief, Office of Land Acquisition and Water Resources
Chief, Water Resources Section

From: Hydrologist, WSC-LWW

Subject: Trip report to Pipe Spring NM - March 24-27, 1971

1. Purpose of trip: To evaluate the results of the pumping test and determine what recommendations to make for completion of the well, if the pumping test so indicated. Also to discuss with the contractor a change order on the contract.

2. Itinerary: Departed San Francisco in late afternoon of March 24. Arrived in Pipe Spring on March 25. On duty at Pipe Spring, March 25-26, and returned to San Francisco on March 27.

3. Accomplishments: I arrived at Pipe Spring about noon and consulted with NPS personnel, the contractor, and the Geological Survey representative, regarding the well test. The test ran for 24 hours and was made in three stages as indicated below:

<u>Stage</u>	<u>Pumping rate</u>	<u>Drawdown</u>	<u>Duration</u>
1	100 gpm	8 ft.	2 hours
2	129 gpm	10 ft.	2 hours
3	150 avg gpm	12 ft.	20 hours

In the third stage, the pumping rate drifted up to 168 gpm which yielded 12.2 feet of drawdown.

The water quality appeared to be comparatively good, having a specific conductance of 675 or an estimated 475 ppm. There was little or no sand or silt produced during the pumping test.

The recovery rate was quite rapid. In the first minute, the water level rose to 58.9 or to -2.2 ft. of the original static level (56.68 ft.) After five minutes, the water level was at -0.92 ft. and at the end of an hour, the water level stood at -0.32 ft.

We concurred with the Geological Survey's recommendation that a perforated 6-inch I.D. casing should be used to complete the well in the 8-inch section of open hole from 175 feet to 205 feet. This will protect the well from possible sloughing of the sandstone.

The maximum sustained yield of this well appears to be on the order of 150 gpm or more. Just what long term effects this yield will have on the water reserves of the aquifer cannot be accurately foretold at this time (e.g., mining the waters). The pump, a 4-inch turbine, was set at 150 feet depth.

4. Summary: A brief resume of the as-built dimensions and hydrologic data of the well is listed below:

Dimensions of the well

Diameter:	8 inches
Depth:	205 feet
Blank Casing:	8-inch ID surface to 175 ft.
Blank Casing:	6-inch ID surface to 175 ft. (to be installed)
Perforated Casing:	6-inch ID - 175 ft. to 205 ft. (to be stalled)

Hydraulics

Producing formation:	Navajo Sandstone
Aquifer type:	Artesian
Static level:	56.68 below L.S.
Transmitability:	126 gpm/ft (182,000 gpd/ft) at 150 gpm
Recommended pump setting:	150 ft.
Producing water level at 150 gpm:	-68 ft.
Estimated producing water level at 200 gpm:	-70 ft.

The above recommendations and hydro-data are guidelines or preliminary estimates pending receipt of the final report from the Geological Survey.

5. Conclusions: As postulated in my previous trip report memorandum of February 19, this well proves the possibility of obtaining potable groundwater from a bedrock aquifer vs. the alluvium. At the location selected, about two miles north of the Monument spring, we discovered an apparently unexploited aquifer. Thus our exploration has provided much useful hydrologic data for further exploration and future development of groundwater of this general area.

(Sgd)

Donald C. Barrett

Approved for Distribution:

(Sgd.) William L. Bowen APR 7 1971

Director, WSC (Date)

cc:

Chief, MW-WASO

Director, Southwest Region

General Superintendent, Southern Utah Group

FNP:DCBARRETT:GSWITUCKI:mlk 4/2/71



IN REPLY REFER TO:

154

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Southern Utah Group
1552 West 200 North
P. O. Box 749
Cedar City, Utah 84720

May 28, 1970

Mr. Bill Tom, Chairman
Kaibab Paiute Tribal Council
Box 323
Fredonia, Arizona 86022

Dear Mr. Tom:

Some time ago we discussed the joint need for a water well, near Pipe Spring National Monument, as a source of water for possible joint development of the area around the Monument. As we proceed with the preliminary aspects of a master plan, the importance of this well to all concerned becomes more apparent.

Therefore, the National Park Service requests permission to drill a test well, under the direction of the United States Geological Survey, near Two-Mile Wash, northeast of Pipe Spring National Monument, on Paiute Tribal lands. In detail, we request permission to cross Tribal lands with vehicles and a drill rig; the right to drill more than one well, say up to four, should unproductive holes be encountered; and permission to adequately test all wells drilled. It should be understood that the National Park Service will use utmost care in crossing Indian lands and will do nothing to scar, damage or deface them. We request permission to drill the test wells within a reasonable distance along Two-Mile Wash.

Should an adequate well be developed, we would propose entering into a formal and documented agreement regarding the use of the well. Provisions of this agreement would reflect Indian and Park Service needs based on final outcome of possible cooperative proposals.

Sincerely,

SIGNED

Karl T. Gilbert
General Superintendent

cc:
Mr. Homer Gilliland, Superintendent
Hopi Indian Agency
Keams Canyon, Arizona 86034

Area Director
Bureau of Indian Affairs
Box 7007
Phoenix, Arizona 85011

Director, Southwest Region
Director, Western Service Center ✓
Area Manager, Pipe Spring

EXISTING CULINARY SYSTEM AT PIPE SPRING NAT. MON.

