

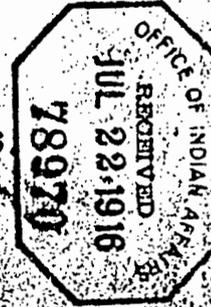
well drilling  
plans.  
Navajo and  
Hopi Res.

6-1143

DEPARTMENT OF THE INTERIOR  
UNITED STATES INDIAN IRRIGATION SERVICE  
SUPERINTENDENT OF IRRIGATION

Albuquerque, N. M., July 17, 1916

The Commissioner of Indian Affairs,  
Washington, D. C.



FILED BY M. P. J.

Sir:

Referring to your letter of May 20, 1916 relative to well drilling on the Navajo and Hopi Reservations.

I have delayed the submitting of tentative plans for continuing drilling, which was directed in this letter as follows:

"I desire that you utilize the funds available in securing a smaller supply of water at various places over a larger area"

until I could prepare a comprehensive map of the district, and I have been handicapped by not having a draftsman available to prepare such a map, and by my unavoidable absence in the field. I have finally prepared the map myself and enclose copy.

The well drilling has been done by four rigs. No 1, a large rig capable of a depth of 1500 to 1800 feet, with a diameter up to 15". The wells put down bear numbers less than 200.

Rig No. 2 was a home made affair, built from parts and fragments of other rigs. It did good work while it lasted, but is now worn out and has not been used in over a year. The wells numbered between 200 and 299 were drilled by this outfit.

Rigs No. 3 and 4 are both small, capable of 500 feet and up to 6" in diameter. The wells numbered 300 up were drilled

by Rig 3 and from 400 up by Rig 4.

The map shows most of the wells drilled, both good wells and dry holes, although all of the latter are not indicated. All holes put down were numbered consecutively, and if any numbers are missing on the map, they can be considered as dry holes put down in the vicinity of the well bearing the nearest number.

The following plans are in accordance with instructions given Foreman Womack, now in general charge of this work, and to the well drillers.

Rig No. 1 will be altered to lighten it to facilitate moving and the handling of light tools. The rig is now about ten miles north and west of Well No. 113 (a little north and east of Tohatchi) and will work north, down the Choiska Valley where there is a great derth of water with a good chance of finding it at shallow depths & and as has been demonstrated, artesian water at greater depths). There is a large population in this valley. Working down this valley will keep the wells in a line approximately following the east boundary of the Treaty Reservation. As this valley approaches the San Juan there is a wide scope of country both east and west to be developed, and another rig could be used to advantage here.

Rig No. 3 is now north of the Black Mountain (Zilh-le-jini Mesa), about 8 miles north of Well No. 354 and 11 north of Rough Rock Springs (Staggs' Store). The rig will work over the large area west of the Treaty Reservation, north of Black Mountain as far west as Kayenta. Its future movements have not been definitely planned.

Rig No. 4 is now near Round Rock, north of Well No. 440 eight or ten miles. There are about two more wells to put down in this vicinity. The country north of this is rough, with small chances for water by drilling, and moreover is fairly well watered by springs, hence will not try to work it until more promising and more important areas are covered.

The rig will move from this vicinity to the valley between Salakai Mesa and Black Mountain -- between wells 347 and 205 -- where four or five wells should be developed as there is much grass and little water. After completing this it will be moved to the west of the Hopi Reservation covering the country along the Denobito Wash, as far north as the Moencopi Wash and Blue Canyon, and then on west of Cedar Ridge.

The plans outlined are tentative, subject to change as the country is further explored or other needs develop.

It will be seen that there are vast areas not yet covered. Some of it is high and rough. parts are sufficiently watered by springs to care for the stock the grass will sustain, and to give more water would encourage the Indians to overstock the range. This would do more harm than good and is to be considered and avoided.

A considerable area is still unexplored with a view of developing water. A reference to the maps prepared by Prof. H. E. Gregory will show large areas not explored by him. We have covered a portion of this and developed good wells 435 to 445 in such areas. It is also true that the predictions

were not always verified, as in the lower end of the Oraibi wash where a large number of dry holes were put down where it was expected water would be found. These conditions are shown in various places on the map.

Of the places not yet touched water may be found, as for example, in the Bonito or Black Creek Valley, extending north and south from Fort Defiance, but as there is more surface water in this valley than at many other points where there is every chance of finding water this has been left for future development.

This report is brief, but taken in connection with the accompanying map should give a good idea of the future movements of the rigs.

The necessity of continuing this important work has not been touched upon, it being so well known to you that I deemed it unnecessary to take the time to reiterate it.

As instructed, copies of this report are being sent to Superintendents Coggeshall, Paquette, Crane and Runke in accordance with the following paragraph of your letter:

"In order that the matter of suitable sites for school purposes may receive proper consideration, you are directed to submit a copy of your report to the Reservation Superintendent, calling his attention to my wish that he shall also submit to me his report, discussing fully the matter of school location".

I would ask that copies of these reports be sent me that I may be advised of possible school locations where water should be developed by wells, that I may cooperate fully, and

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and may have the advantage of any suggestions they may desire to make regarding the drilling and the development of water to the end that this water development may be done to the very best advantage.

Very respectfully,

*W. F. Robinson*

Superintendent of Irrigation.