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21663

Fort Defiance, Arizona,
July 6th, 1889.

To the
Adjutant General Department of Arizona,
Los Angeles, California.

Sir:

I have the honor to submit the following report of a reconnoissance made by me on the Navajo Indian Reservation and from which I returned here on the Fourth instant. I will submit plans for this work and a description with each as soon as I can complete them.

1° The first place that was visited is about seven miles east of Fort Defiance in Gordo's Valley where several families are living and where there is now a large farm and a small dam that is filled with mud. A good large dam can be constructed here with these indians to assist and about twenty acres cultivated. Plans will be forwarded for this dam and reservoir. There is an abundance of Pinon timber here.

2° The next place visited was about three miles East of Fort Defiance where some families are living

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who are now entirely out of water. The old dam that had been built there was washed out. I found the Indians here as elsewhere anxious to have improvements made. A good well and a new dam built at the foot of the large solid rock hill would help them materially. The dam and tank could be built without great expense and the water caught off the rock just like the roof of a house. The well could also be built at a small cost. As soon as wells are built, I believe the Navajoes will see the advantage of them and build them themselves. These indians have about three acres under cultivation. All the stock had been driven away from here to the Agency. A large tank or reservoir here would be valuable as a large tract of land could be cultivated.

3° I then visited Fullers Spring which is about sixteen miles northwest of the Agency and I also revisited Cold Spring en route. I have reported upon the latter before. This Spring would furnish a large amount of water for stock and could be walled up and covered at small expense. There is a family above Cold Spring farming about two acres. There is plenty of timber here, pines, pinons and cedars. At Fullers Spring there is a

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good house and several hogans, all of which are deserted. This is a fine spring and a good stream of water flows from it. This stream could be laigely increased by opening up the numerous small springs in the canyon above, with ditches or drains. The water here is fine and plenty of it for laige farms down the canyon. The old dam is washed out, but when it was in it was worse than none as it could not raise the water to the surface of the soil. Water can be taken out two hundred yards above without a dam. I believe large crops of potatoes could be grown here without irrigation. The finest pine timber abounds in the mountains here.

4° The next place visited was Cattle Spring about nine miles from the Agency. There is a small field of wheat here. This stream flows in an open canyon and thirty acres could easily be cultivated here. I would suggest that a ditch be taken out here and the valley cultivated under the immediate direction of the Agency farmer. This could be done and the expense to the Government would be nothing and the Indians who did the work would have the benefit of it.

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5° At Buell's Camp there is another large Spring in a canon very much like the last in every respect. The Indians have farmed about an acre and a half here, but have given it up on account of the Grass hoppers, they claimed. The dam here could be rebuilt and the ditch reopened and the whole valley cultivated under the Agent. This would involve little or no expense at all to the Government and the finest crops could be produced. Timber is plentiful here, as well as at the Cattle Camp Spring.

6° The South Fork of Black Creek where the "Silver Smith" had taken out a new ditch one mile and a quarter long was visited. This is a fine stream of water and all the families living here are anxious to help with the improvements. There is an old dam of earth and logs which has been washed out. I selected a new place for a dam one mile and an eighth above the old one, where more of the valley could be irrigated and the dam would be less liable to washout. A fine farm could be made here and the finest wheat raised. As the Indians will do most of this work themselves with a little aid and superintendence the cost should

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be light. These Navajoes seem to be industrious and willing to work and now they have several good houses here. There is plenty of timber in this country and the valley is a large one. There is always running water in the Creek.

7° The next point visited was the North Fork of the Black Creek, where an old ditch had been taken out by the former Agent but it was never completed or used. This is a fine stream of constant running water, but it runs between banks of gravel forty feet high. The Indians are farming a few small pieces on the north side of this stream. I believe in the early Spring a few days work by the farmer and an assistant would be of great benefit to these Indians. To complete the old ditch as laid out would take a flume 375 feet long and forty feet high. This would take a ditch the Indians have in use across to the South side of the stream to the old ditch laid out by the Agent. Until the saw mill is in operation I would not recommend such an outlay.

8° I then visited Tunicha Creek where I found most of the farms and the ditch built by the Indians had been abandoned. It was said they moved away.

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so they could raise corn instead of wheat. There seems to be no reason why corn should not be raised here. Fine wheat and potatoes certainly can be raised here. I found the "Silver Smith" who had a farm here was raising very promising crops of both corn and wheat showing at least that it could be done if they cared to do it.

I again examined the work done here, but find that it is of no particular good to anyone, but it is the only work that I saw that was in use at all.

9°. To the west of Washington Pass I found a family living who were farming about three acres which they were trying to irrigate with small stream from a spring. They have also dug out another Spring to the depth of five feet. As soon as the saw mill is well started this man should be assisted with lumber and a man to build open and closed troughs for his Spring. If he had a little assistance of this kind it would be of the greatest benefit to him and a good example to other Indians to help themselves as he has done.

10° We then visited Whisky Creek where there is a fine body of land to be cultivated. 16 Indians are living here now though some move in during the summer. If a dam should be built here I believe it would prove a success

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and a good many Indians would take advantage of it.
A small dam should be located one and a half miles
below the point where the road crosses the creek at a red
clay bank on left hand side just above green marsh and
the ditch taken out on south side of stream. This would
irrigate a body of land one quarter of a mile wide and would
run down two miles to the Canyon de Chelly.

11. The next place visited was at the Wheatfields. I followed the creek down from the farms to the old ditch. Though this ditch is hardly started still it is well located and the valley through which it was projected is a fine one; It is half a mile wide and one and a half miles long. It would fully justify the small expenditure necessary to complete this ditch. Several fine farms can be located here. Above here on the same creek some families have some fine farms and are using a ditch they took out themselves.

12. I next visited farms at Tsea-lee. The Indians here have about eight acres under cultivation. The ditch they have made themselves is a good one, but they want the Agent to furnish them assistance to protect it from high water. This can be done when he can spare the

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lumber or slabs or a man could go up in the Spring and show them how to brace the outside with logs.

13°. At Headwaters of Lu-kai-chu-kai Creek I found a good many Indians at work farming. All complained of a lack of tools to keep their ditches open. They have some good farms under cultivation here, but what they need is assistance next Spring by an Agency farmer. The land is fine and the seasons are long. They have a few fruit trees set out. They have three ditches out on one fork of this creek and one on the North fork and three more out below their junction. If an employe and a team were sent out here in the Spring these Indians could be put in a fair way to raise a large crop next year. Any tools could be issued to them at that time.

14°. The farms on the Chin-a-lee River from the mouth of Lu-kai-chu-kai Creek as far North as the Big Oak Springs. All the ditches along the Chin-a-lee River need pumanent repairs, and ditch heads put in and the Amount of farming done here by the Navajoes more than justifies this expenditure. The water in this Creek and the Pueblo Colorado Creek does not flow in June and July. Therefore before entering into the plans for this work, it will be

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necessary to give a few details of their methods of farming and irrigation where the supply of water is not permanent during the dry season. In the early spring when the land is to be prepared for a crop and while there is still water in the streams the Navajoes lay off square plots of ground and hoe up ridges about eighteen inches high. These squares they fill with water making ponds. This water is soon taken up by the soil and the same process is repeated. After that the ground is hoed and the crop is planted. The Crop has to wait then until the rainy season in July and August for water. It is to get water on this land in the Spring that these ditches are required in the Chin- lee Valley. These valleys are all very sandy, but they are also very fertile. The Chin- lee Creek varies in width from twenty to three hundred yards or more and the channel of the creek is always changing more or less. On this account it is impossible to dam it, except temporarily as the Navajoes do when they want water with brush or dirt dams. Therefore I would recommend that good rip- rap work be put in at the heads of the ditches and the ditches opened up to their farms and after that the Navajoes can open them out and use them as they desire.

I also made a point in selecting places for work in the Chin-lee Valley and in some other places to take places that the Indians wanted themselves or where work on the ditches had been begun or where the ditches were in use. Not because these places were ~~always consid~~ ered best but because several families had chosen these places as their homes and had farms or had done some work on them. They will also work these places more willingly than elsewhere. I have also generally found that these places have generally some advantages to the Navajoes. In my judgment it would be poor policy to try new places.

14°. The farms at Lis-ka-gai (Between the Rocks) stand along the Chin-lee Wash for one and a quarter miles and are from a quarter to a half mile wide. The Indians carry water to drink from the Lis-kai-ha-kai Spring which is seven miles north. The government should supply this place with a well and the ditch head should be enlarged and rip-rapped with rock. Even the best work done on the Chin-lee might wash out in a storm as no foundation is obtainable on account of the sand.

15° The Spring at Lis-kai-ha-kai where the Indians of the above mentioned farms and other families around

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get their drinking water is a large spring. Several hundred ponies and two or three thousand sheep and goats water here.

The Spring is in a deep narrow canon of rock and sand. The stock that waters here is gradually tramping the sand into the spring so that it will be entirely closed up in a short time. It ought to be cleaned out rocked in and the water piped down the canon into troughs. This would require 400 yards of ½ inch wrought iron pipe. The drains could be built of flat rocks laid a foot or a foot and a half below the surface and filled around with broken stone. Ordinary drain tile would be very much better however.

15° The ditch at Big Oaks has never been used though the Indians have made a big effort to finish it and get water on their farms. They have built a small dam here but it is not a pumanent one. This ditch should be completed and opened up. With their assistance the expense would be light. Wood is scarce here.

The Spring at Big Oaks is situated about a half mile north west of the farms. Here three small Springs drip from under the overhanging rocks. This Spring is used almost as much as the one at Ly-kai-ha-kai and needs the same kind of work. Piping the water out into troughs

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and walling up and keeping the stock out of the Springs is all the work needed on each of these springs. These springs are located about ninety miles north west of Ft Defiance

16°. Next, I visited farms about six miles north of Round Rock Mesa (Tsen-a-kohn) This is also on the Chin-lee Creek. A navajo named Quello has a ditch and farm here. This man has built a dam and has a ditch partly built. He needs the same kind of assistance as I recommended for the farms above. A valley of two hundred acres can be put under cultivation here.

17°. I next visited farms nine miles below the Tsen-a-kohn and sixteen miles north of the Chin-lee Trading Post. I would especially recommend that work be done here and also that the springs here be walled up and covered and the water piped out. The ditch here should be completed and cleaned out and the head of the ditch changed to a point lower down and stone be put in to hold it. The new point is marked by a monument.

18°. The ditch at the farms three miles above the store needs some slight repairs, but I donot think the work required here should cost the government much if anything.

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17° The next place visited by me was a point on the Pueblo Colorado River six miles below the store. There are a good many farms here and the indians need a new ditch very much. They asked to have a ditch taken out here and another a little lower down repaired. This work most certainly should be done. If the Indians do the work they promise here, the cost would be very small.

18° I next visited Bear Springs, twenty miles west of the store at Ganado. I found an old fence around this Spring and a few poles laid across it. The Spring was almost filled up with dirt and stones. There is an old ruin on the hill above and from its size I would judge that the Spring was a large one. It should be cleaned and dug out and walled up and covered and the water piped out into troughs.

19° I then visited White Rock or Eighteen mile Spring. It is in much the same condition as the others, except that the Navajoes have done a little work here themselves. The Spring runs out of a hole in a large rock. The basin around the mouth of the Spring has been walled up for a few feet. And below this is a muddy pool.

I would earnestly recommend that the Department clean out this Spring and pipe the water out down the Canyon into troughs. The surplus could be used for irrigation. I believe one of the finest farms on the Reservation could be made here. Plenty of fruit and grain could be grown in this Canyon.

To recapitulate I would say that from this and my former report that work should be begun at Fort Defiance, and completed, then it should be done at the gap three miles above the store on the Pueblo Colorado, and then in succession down the Chin-le Valley, Gordo's Valley, and Six miles west of store at Pueblo Colorado. The following most important Springs then should be fixed up. White Rock or Eighteen mile Spring, Bear Spring, Ly-kai-ka-kai and Big Oaks or Cold Springs. On this work outside labor and material would have to be employed and it would cost the government something for both labor and material. I will submit plans and estimates for the labor and materials.

The other improvements mentioned will not figure materially in the expenses, except so far as the wages of one or two good white men and their teams or the use of a

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government team for a short time.

The only way to do the work and do it well is to complete one place at a time, and not try to fly here and there over the reservation or get a lot of places under way at once.

I am, sir,

Very respectfully,

Your obedient servant,

John M. Flotenberg,

2nd Lieut 6th Cavalry.

4714 a.g.o. 1889

2455 DEPT. ARIZONA. JUL 12 1889

1410 Ft. Defiance, A.T. July 6/89.

Stoksenburg, J.M.
2" Lt. 6" Cav.
File with Reservation Files.
Reports his reconnoissance of the Navajo Indian Reservation.

2582 B WAR 3 DEPT. 1889

2 Enclosures. 2d endt.

2 Enclo. a.g.o.

Letter to the Hon. Sec. of War July 30. 89.

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3806 DEPARTMENT OF THE INTERIOR, INDIAN DIV. RECEIVED MAY 18 1891

Recd. a.g.o. July 30. 89

1st INDIAN OFFICE. Endorsement. 1892

Headqrs. Dept. of Arizona

Los Angeles, Cal., July 17th 1889

Respectfully forwarded to Headquarters Division of the Pacific in connection with other papers on this subject, previously forwarded.

D. A. Grierson
Colonel 4th Cavalry.
Brevet Maj. Gen. U.S.A.
Commanding.

2d Endorsement.

HDQRS. DIVISION OF THE PACIFIC.

San Francisco, Cal. July 19. 1889.

Respectfully forwarded to the Adjutant General of the Army.

Papers on this subject were forwarded April 29th and May 27th, 1889.

Nelson A. Miles
BRIGADIER GENERAL
COMMANDING.

<2 Enclosures.>

DEPARTMENT OF THE INTERIOR INDIAN DIV. RECEIVED AUG 3 1889

21663 INDIAN OFFICE. Inclos No. 3 1889

5194 INDIAN OFFICE. Inclos No. 42 1890.

459 INDIAN OFFICE. Inclos. No. 3 1892

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