THE STATE OF UTAH

OFFICE OF STATE ENGINEER

SALT LAKE CITY

GEO. M. BACON
STATE ENGINEER

May 13, 1927.

Mr. Geo. M. Bacon,
State Engineer,
Building.

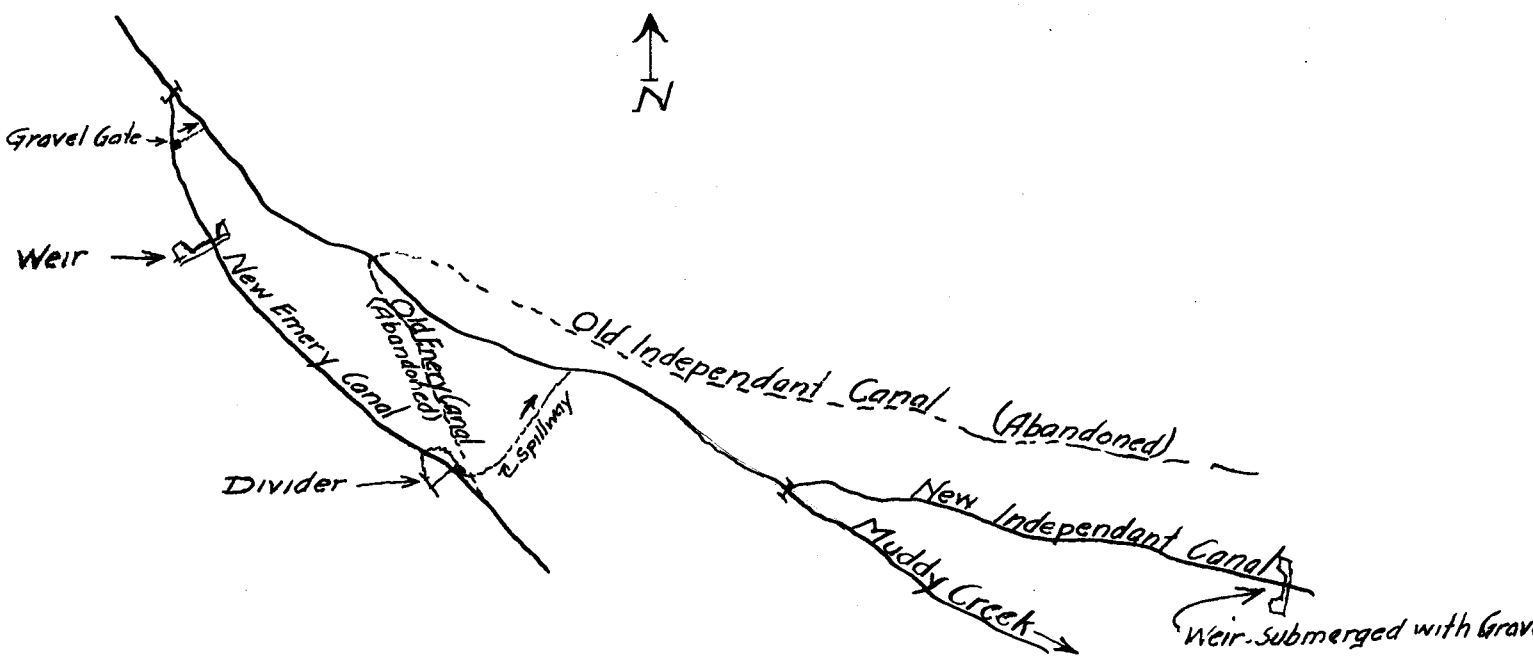
RE: MUDDY RIVER DISTRIBUTION:

Dear Mr. Bacon:

May 11, 1927, I made an investigation in response to a petition signed by ten water users diverting and using water from the Muddy Creek or River in Emery County, Utah, as required by Section 39, Chapter 67, Session Laws of Utah, 1919.

The supposed normal flow of said creek was stipulated as being 94 c.f.s. of water and so decreed in the case, "Independent Canal & Reservoir Co., a corp., et al, plaintiff, vs Emery County Land & Water Co., et al, defendants", which came before the court for trial on the 15th day of December, 1910, and the decree was signed in October, 1918, by the Hon. George Christensen, Judge of the Seventh Judicial District Court in and for Emery County.

My understanding is that the Decreed Waters are now all controlled by the Emery County Canal & Reservoir Co. and the Independent Canal & Reservoir Co. The Emery County Canal & Reservoir Co. diverts its water from the south bank of the Muddy Creek, the canal of said company traversing the mountain in a southerly direction along the west side of the valley above the town of Emery and ending near Quitchumpah Creek. The Independent Canal & Reservoir Co. have, in addition to their decreed water, a certificate for 50.0 c.f.s. of water, said right initiated by virtue of application No. 5648 to State Engineer, also application No. 8793 for 943.4 acre feet to be stored in Crater and Natural Reservoirs, proof of which is due in the State Engineer's office Dec. 10, 1927. This company's waters are diverted from the north bank of the Muddy Creek near the center of Sec. 22, T. 21 S., R. 6 E. The canal traverses the mountain easterly about 3 miles into Sec. 30, T. 21 S., R. 7 E. where it divides. One branch running northerly into Sec. 4, T. 21 S., R. 7 E. and one running southerly into Sec. 6, T. 22 S., R. 7 E. The following rough sketch will more clearly set out the geographic locations of the old and new diversion from Muddy Creek:



The two above mentioned companies' canals originally diverted, as above shown, at the same point. However, in recent years the Emery County Canal & Reservoir Co. has moved its point of diversion up stream some distance, while the Independent Canal & Reservoir Co. moved their point down stream and I can find no record in this office wherein either company made the required application to change the point of diversion for the decreed right. However, there is a change of point of diversion made by the Independent Canal & Reservoir Co. on its certificate right.

In the petition directing this investigation there is a strenuous protest as to the way the Emery County Canal & Reservoir Co. handles its water and gravel.

Each company has its own water master who attempts to regulate the water at the points of diversion with no one responsible to the other and as a result the Independent Canal & Reservoir Co. feels that by virtue of their canal diverting below that of the Emery Canal that they are not getting their water. To handle this situation it appears that there should be a commissioner appointed at once who is responsible for the diversion and who can check on the beneficial use during the irrigation period. Furthermore, the decree above referred to was a stipulated decree giving the Independent Canal & Reservoir Co. 1/16 of the flow up to 94 c.f.s. and they now set forth that the Emery County Land & Water Co., at the time of said decree, nor in the spring of 1903, did not have canal capacity for their

15/16 nor did they have sufficient land under cultivation to justify any such a division as was stipulated in said decree but in order to attempt to hold this water they have made enlargement and extensions of their canal from year to year, and even at this time the Independent Canal & Reservoir Co. questions the capability of their canal to carry 15/16 of the 94 c.f.s. decreed. Relative to this matter, I find in Water Supply Paper #389 where on June 21, 1914, the U. S. Geological Survey made a measurement of the water flowing in said canal which showed that it was carrying 75.0 c.f.s. and a note was made on the measurement stating, "Canal very near capacity".

Again, the Emery County Canal & Reservoir Co. has this spring attempted to take all the water into their canal and have gone down and built a large divider, allowing the water flowing through 1/16 of the Cross Sectional Area of the divider to be returned to the natural channel above the point of diversion of the Independent Canal & Reservoir Co. canal, which I submit they have no right to do for they have only initiated a right to divert their own water from the natural channel at this point of diversion, even if we lay aside the fact that they have changed the point of diversion without permission. However, still worse than the above, the 1/16 Cross Section area of the divider allowed to the Independent Canal & Reservoir Co. canal is taken from the extreme north side of the box which, it can readily be seen, will not by any means give 1/16 of the water even though it give 1/16 the area.

Relative to the gravel situation, their diversions are so located, as shown in sketch above, that when the Emery County Canal is filled with gravel they can open their gravel gate and the gravel that has collected in their canal can readily be washed back into the natural channel. Along comes a flush of water and a large amount of this gravel is carried down into the Independent Canal & Reservoir Company's canal and if they have only their decreed water they are unable to operate their gravel gates and as a result their canal is full of gravel, which incurs a large expense upon them to remove the same. However, these damages seem to be a matter of law but it does not appear to me as though they have any recourse, unless it be that the change of point of diversion is unlawful which I hold it is. The whole matter goes back to the principle that when there is plenty of water in the stream everybody gets along nicely but at this time when the streams are low everybody is in trouble for it is plain that when there is plenty of water the gravel is no problem and everybody is irrigating.

My visit to this section followed a long cold spell which has reduced the flow of the stream materially. I estimated the total flow of the stream to be not over 30 c.f.s. I

found that the spring wheat was being planted and irrigated just as fast as water was available and no waste of water could be detected at this specific time.

The complaint that large areas have been brought under irrigation in recent years is no doubt true, however, we must not lose track of the fact that considerable of the old fields have gone bad and it has been necessary to find new ones. This is very much in evidence in and near the town of Emery.

Reid Jerman

Principal Asst.

Stream flow data of Muddy Creek. See State Engrs' 10th Biennial Report.