

Report of Progress in Resurvey of Certain Blocks
of Land in Pecos Co. Texas.

Hon. J. T. Robison,
Commissioner Gen. Land Office
Austin, Texas.

See Report Recd.
Apr. 29. 1916

Dear Sir,

I would respectfully submit the following report on resurvey of certain Blocks of Land in Pecos Co. showing the facts as found by the survey, and would request further instructions as to locating corners &c under the conditions as presented below.

Object of Resurvey.

To locate on the ground the lines and corners of surveys in Blocks "A", "B", "C", "D" & "Q", G.C. & S.F. Ry. Co. situated in Pecos County, Texas.

Authority for the Resurvey.

Request made to the Commissioner of the General Land Office for a resurvey of these Blocks of Land, by Mr. E. E. Townsend, Superintendent of the Elsinore Cattle Co., owners of certain sections in these Blocks, Notice of said request given in a letter dated Aug. 15, 1912.

Instructions from the Hon. Commissioner of the Gen. Land Office under general appointment as State Surveyor, to "proceed and resurvey blocks A, B, C, D, and Q, situated in Pecos County", dated Sep. 14 1912.

Further letters of instruction as to method of work dated Sep. 26 1912.

Data for the Resurvey.

Working sketch kindly furnished by the Gen. Land Office showing original field notes of Blocks B, C, D, & Q, and adjacent blocks.

Working sketch showing original field notes of Block A,

Working sketch showing field notes of Mr. Green's resurvey of Block 10 GH & SA Ry. Co.

Map of Pecos County.

Field notes of certain surveys adjacent to the south line of Block A.

Field notes of a resurvey made by me of Block 180 Pecos county, showing connection between original corner in Block B and Mr. Green's resurvey of Block 10.

Traverse run by Mr. Lee, Co. sur. Pecos Co. from a corner in Block E T. & P. Ry to a corner in Block B.

Course.

Blocks A, B, C, D, & Q, call for a variation of $11^{\circ} E$.

Observations with the solar compass for true meridian show that the variation of the needle on the true meridian is now about $11^{\circ} 24' E$, this is nearly one degree greater than the needle reading on the Government meridian at the Court House in Alpine. Consequently a number of observations were made at different points in the survey, and compared with similar observations made during the resurvey of the adjacent block 180. Also checked by observation of the north star at elongation. The observations during work in Blk 180 were made independently with two instruments by Mr. Marsh and myself. All agree fairly well with an average reading of the needle of $11^{\circ} 25' E$ on true meridian.

Inspection of the field notes of the blocks to be resurveyed showed two corners marked by witness monuments. The N.W. corner of sur 1 Blk. B and the N.E. cor. sur 90 Blk. A.

There are rock mnds and earth mnds called for elsewhere but no bearings or marks of identification given, except at the N.E. cor. 1 B, and N.E. cor 4 C and call for the creek at S.E. 17 C. These last three corners could not be identified on the ground as related below in the history of the survey.

On the west we have the resurvey of Blk 10 by Mr. Green, this work is well done and the corners are carefully marked and bearings given. We found that a needle reading of $10^{\circ} 40' E$ would retrace these lines.

On the east we have a line of corners carefully put in by Mr. Durrell, who tells me that they used every care in making the survey. A variation of $10^{\circ} 40' E$ will retrace these lines.

The distance between the two original corners found in Blocks B & D (A) is excessive by about $37 \frac{1}{2}$ varas to the mile. A line run from one to the other with an allowance of 38 varas in southing per mile, and 37 in easting per mile will connect the two at $10^{\circ} 40' E$.

If we adopt the true meridian, then the distance north and south will be excessive. We have 383 varas at $10^{\circ} 40'$ excess, to run at $11^{\circ} 25' E$ will add about 219 varas more.

To run at a less variation to reduce the excess in northing will increase the excess in easting in the same degree.

See Letter to R.S. Doo
Dated July 29, 1913

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The data on which we ordinarily base the course to be followed in retracing an earlier survey are found in the block to be resurveyed, either by finding two corners on the same line, or by making readings on the bearings given at some corner. But in this case we could find no two original corners in line and the bearings on the monuments failed to give the variation as in one instance the rock mound was probably not in place and in the other the earth mound had long ago disappeared. The monuments on the two hills were there but the corners were not original.

The course and distance from one of these original corners to the other would have given an excess of some $37 \frac{1}{2}$ varas to the mile and a course a few minutes greater than the one adopted, but in addition to the field notes of the blocks in question we had as a guide their position shown on the map and original sketches relative to the surrounding and adjacent blocks.

If we adopt $10^{\circ}40'$ as our variation we are in accord and parallel the original position of these blocks as shown on the map and there is no conflict in course and the position of the surveys is reduced to a simple matter of distance, giving course its proper precedence.

The N.E. corner of survey 4 Blk C calls for "Point of Antelope, North", and we found an old rock mound about 108 varas north of our line which was south from the west point of Antelope Mt. But this mound was not old enough for an original Barton corner and would have forced a variation of $11^{\circ}30'E$ which would not reach the N.E. cor. 90 as above stated.

Besides this, at N.E. 1 Blk B, one mile east of the original Monument on the round hill, we find a call for the monument and for Antelope, and no position within 100 varas N. or S. would give the calls for both these bearings.

We tried getting the bearing on Antelope west point and moving on that line to get the call for the monument, but could not reach it. We then tried getting on the course from the monument and moving along it to get Antelope but could not get it within reasonable limits. So when we came to the call "north" to point of Antelope we were not surprised to find it would not fit any reasonable construction of the surveys.

It is also to be taken into consideration that Mr. Durrell and Mr. Green were on the ground at a much earlier date than we reached it and there may have been footsteps of the original surveyors then on the ground since erased. The fact that these lines both on east and on west run at the same variation and one which fits fairly well the conditions of the Blocks in question makes a strong presumption in favor of a like variation for the resurvey of our blocks.

The excessive distance, the calls for numerous rock mounds without bearing, the fact that these mounds as called for can not be found, suggests careless work in the original survey.

At S.E. corner sur. 17 Blk. D, the creek is called for at XX 580 varas north. We meandered the creek for some 1200 varas and then ran a line an average of 580 varas south of the creek meanders and searched carefully along this line for a rock mound but failed to find anything.

We also ran from the N.E. corner 90, at $10^{\circ}40'E$ south to a corner described in the field notes as made by Mr. Barton at about the same time he states that he put in Blks A, B, C, D, we found this corner identified by a pine tree marked as called for and showing signs of suitable age in growth and marks. It was 47 varas east and 74 varas too far south to fit the calls for distance, so that it did not help us in settling course although it showed that Mr. Barton was liberal in his measurement of distance, probably throwing in 40 varas to the mile.

We searched carefully for some of the rock mounds called for at other points in Mr. Barton's survey, but found none. And it may be well to state that Mr. Moss Co. Sur. of Brewster Co. and Mr. Hector a local surveyor, have made extensive surveys in these same blocks but have so far failed to find any of the numerous rock mounds called for in the original field notes.

The earth mounds if ever made have long since disappeared. The fall in the surface of the country where we inspected it is considerable and the consequent change in surface due to erosion is so great as to make it a physical impossibility for an earth mound to last for more than a few years at most.

Consequently the only data for course as far as we could discover any, was the relative position of the two monuments above referred to, and the course adopted by surveyors for the adjacent blocks about the same time.

Hence we adopted $10^{\circ}40'E$ as the course for lines in the resurvey of Blks A, B, C, D, & Q.

Distance.

Measurements were made by stadia method. Two rods being used. The front rod being a target rod set from the instrument and read and booked by the rear man. Rod being held perp. to horizon checked by red level.

The back rod was leveled by plumb bob and was self reading read. booked at the instrument. Giving two readings by different men and different methods for each distance.

The wires were set and checked from time to time by 100 vara steel.

Also a check was had on some lines from marks set by Mr. Moss who had checked over some of the lines we ran. Distances checked out fairly well.

Starting point.

The N.W. corner sur 1 Block B calls for a monument on top of round mountain. This monument is easily recognized and has been identified for years and accepted as the original bearing for this corner. The rock mound marking the corner is old and has been noted in its present position for years. The variation however, required to give the course from this mound to the monument is $9^{\circ}40'$, a change of 4 varas would bring it to $10^{\circ}40'$. I don't think there is any question but that this is the original monument and probably the original corner.

The N.E. corner sur 90 Blk. A calls for an earth mound and a stone mound on a hill S $59^{\circ}E$ 320 varas.

We found the stone mound on top of the hill and it is easily recognized although a bush has grown up near it and hides it from a superficial investigation. There is another mound some 184 varas north and 108 east on the slope of the same hill, but when you look closely you can see that what seems at first to be a number (4) of separate rocks are really pieces of one large rock split by the weather. You can fit one piece on the other, whereas the true rock mound is some three feet high and the lower rocks have sunk into the soil and the upper ones when moved show the weather stain on the underlying rock marking the shape of the superimposed stones. There is no question but this mound was built by man, and the weather marks date it back at least to the time of the Barton survey.

The earth mound, from either mound, would be on the slope of the hill. The wash on the bushes and tussocks shows that there has been a change of surface of some 4" to 6" in the last few years and it would be impossible to find an earth mound of even a few years ago.

This monument on the hill was used as a starting point and a rock mound was built at the course and distance called for in the original field notes, using a variation of $10^{\circ}40'E$.

This corner was further identified as noted above by running south 1900.8 for survey 90, 2095, and 1344 for intervening surveys and 200 varas east where a marked Barton corner was called for. This corner we found 74 varas south and 46 varas east, identified by a pine tree with old marks as called for.

Further, on running east and placing the S.E. corner 96 Blk. D, we found the Barton corner S.W. 8 S.A. & M.G. only 38 varas too far south.

We found from the evidence on the ground and the connections to the two other Barton corners that this N.E. corner 90 A, was the original corner made by Barton according to his description of it in the field notes and his further connections with surveys made at the same time.

We ran south and east from the N.W. corner sur 1 Blk. B, to the above described corner N.E. 90 A, as recited above and on these two corners based our resurvey of the Blks in question.

History of Survey.

N.W.

Beginning at the identified original corner of survey 1 Blk. B, we ran east 2900.8 varas, at this point field notes call for bearings on monument on round hill and Antelope. We tested them and could not make the two bearings fit at any reasonable change of either variation or distance.

Ran on east 5 miles, here call is for Point of Antelope North. Found old rock mound due south of west point Antelope at true variation, but mound not old enough for Bartons survey in our judgement, and would throw Block C out of line with surrounding surveys made at about the same time.

Ran on east two miles, then south nine miles, searching for original rock and earth mounds but finding none.

Here we connected with a rock mound lying 380 varas east 327 east. Went to N.E. 90 A as above described and ran two miles east and hunted rock mound, could not find it. Ran North and at 2280 reached rock mound above mentioned, 8 varas west.

This showed an excess in distance between original corners of 380 in northing and 333 in easting, using a variation of $10^{\circ}40'E$.

When standing at N.E. 90 A and looking west one would guess two miles would come out on a rocky hill. Field notes call for a rock mound on rocky hill. Standing at a point on the line south from N.W. 5 D, one would guess that the N.E. corner 23 D would reach a rocky point running out from a ridge.

To run an easy traverse from N.W. 1 B to N.E. 90 A, one can keep in the

valley and guess at the hill corners. And this traverse will pass S.E. corner sur. 17 where the call is given for the creek and will reach old "government road" which ran to Fort Stockton.

Having found this excess in distance between the only original corner that we could satisfactorily identify, amounting to 37 varas in easting and 38 varas in southing per mile, we went back over the line and placed our corners as shown in the sketch accompanying this report.

We ran east from the N.W. corner 13 Blk D, putting in the excess of 38 varas per mile to N.W. corner 43, north of original N.E. 90 A, then on east 1900.8 varas per mile.

At N.E. 66 I met Mr. Achtenberg who owns survey 66. I had found two corners at this point some 100 varas off our line to the north west, and he told me there were three more some 50 to 100 north east of our corner, showing the uncertainty as to location of lines and corners.

We ran to the S.E. corner 66, thence north to N.E. 66, thence east to N.E. 90, thence north to S.E. 97, thence east 4365 varas to a point 80 varas north of the N.E. corner sur. 10 Blk. 113, leaving 565 varas for Blk Q.

At this point I found a rock mound under a fence and a rock marked "C", I could see this fence for some three miles and it ran over the T. & S.L. corners. This line read $10^{\circ}40'E$. from the "C" corner to the "B" corner, and this was the variation of the fence, which where seen was over the T. & S.L. corners.

We returned to the S.W. corner 97 D, and put in the corners for No. 1 & 2 Block Q, 565 varas east of the ~~xxx~~ east line of Block D as above located. We then ran south along the east line of Block D, putting in the corners of surveys in Block D at 1938 varas per mile, and the Blk. Q corners at the distance called for, as shown on plat.

On reaching S.E. cor. 96, we ran south and east to connect with the Barton corner at S.W. S.A. & M.G. and found it ~~42~~ 38 varas too far south and 178 varas too far east.

This at once raises a question as to surveys 5 & 6 Q, I put in the corners of survey 6, according to the T. & S.L. corners which come from the north. Bartons corners for S.A. & M.G. come from the south. What to do with this 178 varas in easting I did not know. I put in the survey 6 corners to fit the T. & S.L. line, but as they call for the D. & P. surveys which seem to depend on the S.A. & M.G. they may require readjustment, and I would ask further instruction in this matter.

Of course the facts on the ground appeal much more strongly to the surveyor than a written account of the run can do to one not on the ground. I believe that the corners in Blks. A, B, C, D, & Q, are correctly placed, except perhaps survey 6 Q.

From the corners already marked it will be very simple matter to mark what other corners may be thought necessary to finally locate the surveys in these blocks.

After completing the above related runs, I went to the N.E. cor. 310 in Blk 10 as resurveyed by Mr. Green, and ran south, to test the variation as compared with the $10^{\circ}40'E$ which I had been using.

I found N.E. 310, S.E. 310, & S.E. 307, and could see flags on these 3 corners, they corresponded exactly with the variation I had used in Blk 10 when resurveying Blk 180 and also with the variation used in resurvey of A, B, C, & D, & Q.

I found a recent rock mound and stake at S.E. 304 which was 20 varas east of Mr. Greens line. One set before reaching this rock mound I could reverse on the three Green corners so there could be no mistake. It is an outrage that such things can occur. Greens work is fine a little excess in distance, which was customary at that time, but his lines are straight as a die, and corners well marked and good bearings. Read to a minute with transit from his line. And then here is a corner made by some surveyor 20 varas out of line with three Green corners in sight.

Mr. Townsend, Superintendent of the Elsinore Cattle Co. who are making this survey, will present this report and consult with you as to what further work may be necessary.

I have omitted the details of the history of the survey as not essential to the full presentment of the facts. If anything is left obscure or needing further explication please notify me and I will at once report what further facts may be necessary.

Respectfully

R. A. Deed
Flat Deer

Recapitulation.

Original fieldnotes of Blks A.B.C.D. show that they are so connected th they may be treated as one block surveyed by same Sur. at the same time. Original N.W.cor.sur. 1 B, fixes the north line of A,B,C, and a line throug D, two miles south of the north line of the block.

Original corner N.E.sur 90 A fixes the south line of A, one mile south. Also a line projected west and east fixes south lines of B,C,D, A line run south from N.W. & 1 to an in tersection with a line west from N.E.90A is the line of adjustment for these surveys, and the excess between these points will be divided pro rata among surveys on this line. A line run north from N.E.90A to intersection with a line run east from N.W. 1 B will be the line of adjustment for these surveys, and the excess east and west between N.E.90A and N.W. 1 C will be divided pro rata among the surveys included,

Surveys east of the line north from N.E.90 A will take course and distance east and west and prorata exces north and south.

Surveys west of line through N.W. 1 B will take course and distance east and west and prorata excess north and south.

Surveys in Blk D north of a line east from N.W. 1 B will take course and distance north.

Surveys south of line east and west through N.E.90 A will take course and distance north and south.

Block Q lies between the east line of Blk D as above defined by course and distance east from N.E. 90 A, and the west line of Blk 113, which is two miles west of the well defined line of T. & S.L. corners, a measured distance of 565 varas.

Examined together with the plat accompanying this and found correct. July 14, 1913. E. von Roseberg Chief Draftsman

Approved and Filed July 14, 1913.

*J. T. Robison
Commissioner*

*Sketch File 114
Pecos
Report & Reply accompanying 819 sk. 44
July 14
1913*

*Keep with
Pecos County Rolled Sketch "A"
Report
By R.S. Dod
Filed July 14 1913*

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Reconciliation.
 Original fieldnotes of Bks A, B, C, D show that they are so connected that they may be treated as one block surveyed by same Sur. at the same time.
 Original N.W. cor. of B, fixes the north line of A, B, C, and a line through D, two miles south of the north line of the block.

Original corner N.E. sur 80 A fixes the south line of A, one mile south. Also a line projected west and east fixes south lines of B, C, D. A line run south from N.W. 81 to an intersection with a line west from N.E. 90A is the line of adjustment for these surveys, and the excess between these points will be divided pro rata among surveys on this line. A line run north from N.E. 90A to intersection with a line run east from N.W. 1 B will be the line of adjustment for these surveys, and the excess east and west between N.E. 90A and N.W. 1 C will be divided pro rata among the surveys included. Surveys east of the line north from N.E. 80 A will take course and distance east and west and pro rata excess north and south. Surveys west of line through N.W. 1 B will take course and distance east and west and pro rata excess north and south. Surveys in Bk D north of a line east from N.W. 1 B will take course and distance north. Surveys south of line east and west through N.E. 90 A will take course and distance north and south. Block 9 lies between the east line of Bk D as above defined by course and distance east from N.E. 80 A, and the west line of Bk 113, which is two miles west of the well defined line of T. & S.L. corners, a measured distance of 885 varas.

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Examined together with the plat accompanying this and found correct.
 July 14, 1913.
 J. W. Robinson
 Chief Surveyor

Approved and filed July 14, 1913.

J. W. Robinson
 Commissioner

File No. Sketch File 114 County Pecos
Report & Reply accompanying Rld. Sk. 44
 Filed July 14 19 13
 By GARRY MAURO, Com'r

Keep With
 Pecos County Rolled Sketch "44"
 Report
 By R.S. Dod
 Filed July 14, 1913

Pecos 44 5 of 7



General Land Office.

State of Texas.

Austin.

July, 29, 1913.

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J.T. ROBISON, COMMISSIONER.
J.H. WALKER, CHIEF CLERK.

Mr. R. S. Dod, State Surveyor,
Alpine, Texas,

Dear Sir;

Your Pecos County report and plat filed by Hon. Chas. Rogan of this City, representing the owners of surveys in blocks A, B, C & D, also in block Q on the east: this work has been examined and I find the construction given by distributing the excess to the surveys according to the cross calls of each survey are correctly construed, that is, the re-survey of these blocks in Pecos Co. as you have indicated on the plat, blue-print of same herewith. From the west line of survey No. 1, blk. B (and all surveys in blocks B & A south of said survey No. 1) east to the east line of survey No. 34, blk. D (and all sections in blocks D & A north and south of said survey No. 34) an excess of (37) thirty-seven varas to the section, east and west should be allowed. All other east and west lines in blocks A, B, & D should be 1900.8 varas.

From the north line of section 1, blk. B (and all sections in blocks A, B, C & D, east and west of said section) south to the south line of section 75, blk. A (and all sections in blocks A & D, east and west of said section), an excess of 38, thirty-eight *varas* to the section, north and south, should be allowed. All other north and south lines in blocks A & D should be 1900.8 varas, except where the north tier of sections in block D may conflict with older surveys in block 3, T & F R. R. Co. You will proceed accordingly and finish up the work, and return the field notes for the balance of the surveys with duplicate field notes.

I am returning the field notes for the E. 1/2 and S. W. 1/4 of survey No. 48, blk. D for correction. You have given 1937 varas E & W. on its north and south lines, should be 1900.8 varas. The rule in case of an excess, the last purchaser is entitled to all the excess, the N. W. 1/4 of this section was sold first containing 160 acres to E. H. Townsend (F. 95496), hence Joe Parker is entitled to the balance, including the excess (F. 163588), please return corrected field notes for the entire section No. 48 and duplicate for the County Records.

I also return the field notes for section 6, blk. Q, T. C. Ry. Co., cert. 1845 for re-formation to include all the territory called for in original notes for the lines of adjacent surveys, see plat herewith, also plat under separate cover, and General Laws of Texas 21st. Legislature, Chap. 30, sec. 1. Please return corrected field notes for school section No. 4, blk. Q by cert-

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General Land Office.

State of Texas.

Austin.

J. T. ROBISON, COMMISSIONER.
J. H. WALKER, CHIEF CLERK.

ificate 3054, G. C. & S. F. Ry. Co., as indicated in blue on plat and oblige. The East 1/2 of this section or that portion free of conflict was purchased by A. B. Paschal as a home (F.84621).

Delay in answering your letter could not be avoided in consequence of crowded condition of the Drafting Department, two of the men being absent on their vacation and one in the Sanitarium.

Yours truly,

E. von R/SCT.

Commissioner.

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File No. Sketch File # 114
Pecos County
Report & Reply accompanying Rld. Sk. 44
Filed July 14 19 13
By GARRY MAURO, Com'r

Pecos 44
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Letter to R.S. Dod. Filed 7-14-13

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