

Pecos Co. SK FILE 63

1179
521 ✓

615⁵?

80 ✓

~~1212~~
~~679~~

~~181~~
~~21~~

1173
324 ✓

~~1171~~
~~371~~

~~1175~~
~~613~~

1176

687 ✓
310 ✓

1218
672 ✓

Pecos County \otimes
Sketch Files -

List of Letters of
Instruction to
R. S. Dod - Pecos
Block 1 L & G Ry Co.
as 194 G. C. + S. F. Ry Co

Letter Book	Page	date
1179	80	12-23-15
✓ 1179	521	1-8-16
✓ 1218	672	2-17-17
✓ 1232 +	476-7	6-29-17
✓ 1305	6-9	6-15-19 ¹⁹

See also

✓ 1176 - 310 + 687

1272/1131 9-6-18

✓ 1276 166 11-2-18

1325 633 11-19-19

1391 86 3-4-21

counter 33792

Pecos Co. SK. File # 63

June 29th, 1914.

Capt. E. S. Dod,
State Surveyor,
Alpine, Texas.

Dear Sir:

Mr. I. G. Yates was in the office yesterday and handed us your Plat and Report of Egress in a resurvey of certain sections of land in Block 194, S C & S F Ry Co, Block 1, I & G N Ry Co, and survey No. 3, Bannala County school land, in Pecos County owned by him.

I have carefully examined said plat and report and note your findings on the ground and also the difficulties and uncertainties in identifying some of the original surveys, especially corners on the river. However, as a whole I think you have the situation pretty well in hand and need no further instructions from this office relative thereto further than answer to your several questions in their order as follows:

(1) The base line run by you from a point on the East line of Block 2 fixed for the N. E. cor. of survey No. 11 in said Block 2 by prorating the excess of 104.6 vs. E and S in said Block, for N. W. corner of survey No. 5, Block 194, and extending East to the N. E. corner of survey No. 34, Block 194, appears to be properly located.

(2) If there is excess East and West in surveys in Blocks 03 and 04 to which surveys in Blocks 178 and 194 tie, such excess should be accordingly given to surveys or tiers of surveys extending E & S through said Blocks 178 and 194.

(3) As to whether or not you have sufficiently identified as original, the N. E. corner of survey No. 55 and N. E. corner No. 60, Block 1, is a matter that you must determine to your own satisfaction from the facts and conditions found on the ground.

K. S. D. #2--

(4) The location of the N. E. corner of survey No. 69, Block 1, is also a matter that you must determine from facts and conditions on the ground, but from your statement and plat it appears that the point at bend of river described by you (it being also the same point described by O. W. Williams in 1892 for that corner) is probably the original N. E. corner of No. 69, and believe you would be safe in accepting same.

(5) Surveys in Block 1, I & G N Ry Co. should be located according to the several original corners identified by you, prorating excess, if any, in northing among all surveys between said original corners. This will dispose of the space of 180 varas between surveys 60 and 61 and the 190 varas between surveys Nos. 68 and 69 shown by your plat.

In reference to the field notes of survey No. 545, T I & M Co, I find from an inspection of the field notes of surveys on both sides of the river that opposite surveys as originally made have identical meander calls along the river. I am, therefore, enclosing a pencil copy of the field notes of survey No. 75, I & G N Ry Co, on the East side of river opposite to survey No. 545, which may aid you in straightening out that tangle.

(6) Survey No. 3, Rummels County school land should be located from the S. W. corner of No. 70, based on N. E. corner of survey No. 69, Block 1, and not adjacent to Block 194, for reason that said Rummels County school survey was made more than two years before Block 194 was surveyed, and has no marked corners to tie it on the ground or calls for any surveys other than the river surveys on its North and East.

Your sketch only shows a few points where you connected with the river. In completing your work this office would like for your sketch to show a retrace of the meanders of the entire river from the S. E. corner of survey No. 53 up to the upper corner of No. 71.

Very truly yours,

Clark-llh

Commissioner,
com

Block 2-13-19

Alpine, Texas, Feb 10 1919

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

Dear Sir,

I herewith submit report on Resurvey of various Blocks of Land on the Pecos River above Sheffield.

It has taken a long time to compile plat and report as the reconstruction of the surveys was involved on account of junior surveys intervening between surveys in the older Blocks, the field notes not conforming either to older work or to facts on the ground.

I think we have so collated all the data that the questions at issue may be intelligently passed on.

I have tried to condense the report and avoid relating unnecessary details of survey, and state only those facts that have a direct bearing on the location of boundaries.

I have enclosed copies of field notes for the applications for purchase made by both Mr. Yates and Mr. Holmes, explaining to these men that I had no authority whatever in the matter, and made out the field notes simply as a matter of convenience so that the matter could be intelligently discussed with your Office.

Any further explanation or information will gladly be furnished, if required, and within my ability.

Respectfully

R. S. Dod

P.S. I am sorry I had to cut the Plat in two, but the men who paid for the survey wanted copies and my print frame would not take the whole map.

*See instructions in Letter Book 1232
476*

6/29/19

See also Dod's report received 3-3-21

Blanch

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counter 33095

Report of Resurvey of Blk.1 Pecos River
Block 194,193,178,

Meanders of the Pecos from N.E.69 to S.E.37 Blk 1,

List of new corners and bearings made on this survey.

Method of determining excess in Easting in Blk.194

Plat and field notes of unsurveyed land between Blk 1 & Blk 194

Field notes resurvey of H.C.Nolke application,

" " Holmes application

" " Yates "

Field notes of Resurvey Punnells Co.No 3,

Field notes of unsurveyed strip north of Plk 194, Yates.

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Report on a Resurvey of
Block 1 I. & G. N. Ry. Co. from N. cor sur 72
to N. E. cor sur 32, on the Pecos River
and adjacent Blocks and surveys
in Pecos County, Texas,
by R. S. Dod
State Surveyor.

Object of Resurvey.

- 1 To locate on the ground the actual position and meanders of the Pecos River, and lines of surveys in Block 1, I & G N Ry Co.
- 2 To locate on the ground the true position of lines and corners of Runnells Co. No 3,
- 3 To locate on the ground the east line of Block 194, G. C. & S. F. Ry. Co from corners on the west, and determine its relation to the west line of Block 1,
- 4 To locate on the ground the true position the east line and south lines of Block 178 T. C. Ry. Co.
- 5 To locate on the ground the true position of surveys in Block 193 Tex. & Mex. Ry Co. from connection with original corners called for.
- 6 To locate on the ground the true position from their field notes of survey 1 1/2 in the name of J. Hudspeth, and the town site of the town of Sheffield relative to adjacent survey lines and corners.
To locate and determine area of any tract of unsurveyed State Land between or adjacent to the above Blocks of surveys.

Authority for the survey.

Letters of instruction from the Commissioner of the General Land Office of Texas authorizing and instructing me to make the resurvey of the above tracts and Blocks of land, issued at the request of the owners of certain of these tracts of land.

Data for the survey.

A working sketch of Block 1 I & G N Ry Co, Block 194, Block 2, Block 178 Block 193, Block C4 and Runnells Co sur No. 3. from the Gen. Land Office, Working sketch of Block C3 & C4 and A2 from County Surveyors records in Fort Stockton made by me.

Plat of resurvey of Block 1 and Pecos river and adjacent surveys by O. W. Williams as Co. Surveyor of Pecos Co. in 1892, kindly furnished by the Gen. Land Office.

Plat of lines of connection between original corners in the above named Blocks run in a preliminary survey made by me and submitted to the Commissioner of the General Land Office for correction and further instruction under the premises.

Plat of Town Site of Sheffield and field notes of subdivisions of Sur-5 and survey 1 1/2 from deed records of Pecos Co. kindly furnished by Mr. Geo. Hazeltine of Fort Stockton.

Plats of surveys and connecting lines run Mr. A. N. Leapas County Surveyor of Pecos County and filed with the General Land Office, kindly furnished from that Office,

Patents to certain of the surveys in Blk 1 and sur 1 1/2.

Method of survey.

Transit with solar observation checked by observation of north star at elongation, was used to determine courses, checked by reading of the needle at each point of the meanders and frequently on the right lines.

Distance was measured by double Stadia rod readings, each distance read twice and checked by comparing front and back rod readings.

Variation.

The present magnetic variation and course of old lines was first taken at N. W. cor Blk C4 where we had two mountain bearings, this gave a variation of 10° 41' E, This was checked by run north and east to connect with original corner of 33 Block 2,

Later this variation was proven correct by observation of the three Bluff bearings at N. E. cor 43 Blk 1, also by the fact that in running out from an identified original corner of Blk 1 on the river, then running

the back, or west lines of surveys and returning to the river at another original identified corner placed the original corners nearly in the relative position given by the original field notes, whereas any serious error in variation would have thrown the west lines too close to or too far from the river at the fixed points where original corners were identified.

Also a run from the well identified original N.E. cor sur 43 A2, which is also the S.E. cor of sur in C3, to the rock mound and Mt. bearing at S.W.6 C3 showed that this variation fitted both bearings and course of lines in Blk C 3.

No local attraction was noted, and only a slight diurnal variation, greater or less according to climatic conditions.

The true meridian gave a variation of $11\frac{34}{100}'$ from the magnetic north. The determination of the course of the original lines was essential as the original corners found were at considerable distance from each other necessitating long lines of connection through the Blocks in question.

Preliminary examination of data,

The survey as shown above naturally divides itself into 5 distinct surveys, First, the senior ~~Rxxxx~~ senior survey Block 1 made by Mr. Keuchler in 18 and based on the meanders of the Pecos river and certain marked river corners, no corners being called for on the west.

Some of these river corners have trees as bearings, some have mound bearings and some call for rocks marked IR and set in the ground,

The first step in locating the surveys in Block 1 would be to meander the river and look for the original corners.

On seeking a starting point on the river we find the N.E. corner of survey 69 to be the first marked corner with bearings given, below the North corner of survey 72.

The original meanders place this corner at a sharp bend of the river, nearly a right angle from S.E. to N.E. and continuing some 1600 varas east before turning south again, and no similar bend is shown for several sections up and down the river from this corner,

The field notes call for a rock mound on the west bank of the Pecos river, between two riffles with a Hackberry tree west 9 varas,

In the report of Mr. Williams as CO. Sur. Pecos Co. in 1892 he states that he found this corner and the hackberry dead in place, and took a new bearing on a rock bluff S $47\frac{1}{2}^{\circ}$ E.

We found a bend in the river closely corresponding to the original field notes, and a rocky hill with bluff caprock S $47\frac{1}{2}^{\circ}$ E, At this bend a draw runs in from the west, on the north edge of which are several small hackberrys, 4" to 6" in dia. but none marked.

There is also a draw which runs in to the river at this bend, from the south, with rock ledge showing on river bank, a riffle below the bend and a gravel bar, once a riffle now cut through, above the bend. We were shown a rock mound marked "N W 69" about 350 varas south of the south bank of the bend. In a former report we used a point 350 north of this rock mound as the probable location of the original corner N.E. 69, but a closer examination of the present river bank, noting the erosion that had been caused by the two draws, the position of the Hackberry timber, connection with original N.E. 60, and with the river at North cor 72, the meanders of the river to S.E. 69, lead me to believe that the original position of the river and corner were further north, so we placed a rock mound for the N.E. 69, on the west bank of the river, 410 varas N $1^{\circ}30'$ E from the rock mound mkd "NW 69", and N 47° W from the east edge of the rocky bluff used as bearing by Mr. Williams, as more nearly satisfying the original description of this corner

From this point, as a check, we ran course and distance to the N.W. cor sur 69, and made mound, on west 2344 varas for the S.W. cor sur 70, and N.W. cor Runnells Co. No. 3, North to N.W. 70, west to S.W. 71, Thence to S.W. 72 and north to the river, At 1910 varas we dropped some 20' into the river bottom covered with brush and some drift, on at 2204 reaching the south bank of the present river bed. On the north side we noted that the river ran along a low gravel ridge preventing any further movement north, but a former channel might be anywhere in the river bottom.

Returning to our N.E. 69 we meandered the river, taking points on the right bank or in the river bed on gravel bars. The details of this run are given below.

At 921.5 south and 2750 E we found two rocks lying on the bank, one of them marked "1", At 1968.7 south and 3708 east we found a rock mound with rock marked "2".

On reaching the N.E. cor sur 545 the question of error in the corrected field notes came up. The field notes in the Patent to this survey follow the corrected field notes made by Mr. Nelson and do not fit the original field notes or the actual meanders of the river. This matter was investigated when the preliminary survey was made and the original meanders of the river were found in the field notes of the survey opposite sur 545, on the east bank of the river. As the object of this survey was to follow the footsteps of the original survey of Block 1, we used the original meanders of the river and original connections with adjacent surveys in the same block. The relative position of survey 545 may be governed by the calls in the patent, but the original field notes must be used to determine the relative position of the adjacent surveys in Blk 1, which run in a continuous chain from one old corner to another.

We were shown a rock mound marked "SW 545" said to have been placed by Mr. Ratchford as Co Sur. and mentioned as a starting point in one of Mr. Lea's reports. This mound is 5819 varas west and 140 south of the point on the river where this survey locates the S.E. cor of sur 545, our S.W. 545 under the original field notes is 1233 varas west and 140 north of this Ratchford S.W. 545. Mr. Ratchford, apparently following the Nelson field notes, places his S.W. 545 at the distance called for, 4596 varas, for the south line of 545, but apparently the use of these field notes at this point in the chain of surveys brings the S.W. cor of 69, as noted above, almost south of the fairly well identified N.E. cor of the same survey.

Continuing our meander line we found no old marks or corners until we reached the S.E. cor survey 61. Here we found an old I.R. rock set in the ground on the west bank of the river, probably in its original position. This rock was described in report on preliminary survey.

This gives a total southing of 8937 varas and an easting of 7145 varas, between original N.E. sur 69 as above described and this N.E. cor sur 60.

As these surveys all connect, all call for the same width, the excess in southing, under my instructions was pro-rated between them, giving a width of 993 varas to each survey.

The position of the west lines in these original surveys is fixed by the calls for distance from the river corners, but owing to the change in the river since the original survey was made in 1876, the easting of these river corners has presumably changed, at least is uncertain, except at those points identified as original corners, hence at intermediate points a measurement from the river would be uncertain and indefinite. But the length of each line is given and the original difference in easting or westing of these west lines can be exactly determined by comparing the calls in adjacent surveys, giving a continuous line deduced from the original calls for the west lines of these surveys, with a check by measurement to the river at points identified as original corners.

Returning to the N.W. cor of sur 69 as above described we ran south 993, east 1262, south 993, east 656, south 993, east 1910 (orig calls) south 993, east 2167, south 993, east 355, south 993 west 511, south 993, west 500, south 993 east 1171, for N.W. cor sur 60, from which point to the IR rock N.E. 60 measured 2760 varas, the original call being 2750.

This closure seems to show that the west lines as above run must be very close to the original position defined by the field notes and that the variation used must be very close to that of the original lines.

From this N.E. cor sur 60 we continued our meander of the river, without finding any original marks until we reached the N.E. cor sur 55. This was a rock mound on the extreme edge of the west bank of the river, marked "NE 55", and one rock marked "10". This corner was reported in earlier preliminary survey and was accepted as probably the original corner. The N.E. cor sur 543 calls for an IR rock which Mr. Williams states that he found, but it has disappeared. I was told by several parties who had lived near these lands that the IR rocks had been purposely torn up and thrown into the river. In many cases the change of channel would account for their disappearance, but it is strange that all but one are not to be found.

From this N.E. corner of 55 west to the N.W. cor 55, the call is 3457 varas the actual distance from this N.E. 55 to our S.W. 55 is 3546 varas. But on figuring the easting in the field notes between these fixed points we find that the original meanders give 4221, while our meanders show 4302 varas. An error in the original which accounts for apparent discrepancy in westing of the north line. And gives an average width of 988 varas to each survey.

To find this N.W. 55 we ran from our N.W. cor sur 60, South 988, east 1430, south 988, east 947, south 988, east 445, south 988, east 285, south 988, east 400, marking each of these west corners, field notes attached to this report.

We continued our meander of the River from this N.E. 55 as shown below, to the N.E. cor sur 43, before finding any marks positively identifying any original corner.

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West, 5993

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We had hoped to find the large rock bearing called for at NE cor 52, but examination on the ground showed that a change of river bed had covered this rock.

At N.E. 50 we found a fence corner, and were told that the corner post had been set where an old rock mound once stood. But our distance ran out some 10 varas south of this point, and within two tenths of a vara of the centre of a small rock mound standing 150 varas west of the present river bank.

This rock mound is at the foot of a ridge or bank and the river bottom extends eastward for 150 varas, the original channel may have been anywhere between this mound and the present river, it is all subject to flood now.

We also ran from the N.W. cor sur 55 as above noted, south 950, east w 216, south 950, east 65, south 950, east 564, south 950, east 546, south 950 to S.W. corner sur 51, marking each corner as shown below.

We found this corner to be 3851 varas west of rock mound described at N.E. sur 50. The original call is 3886 varas, but the original corner may have been anywhere at or east of the rock mound above described.

From N.E. cor sur 50 the river runs through a comparatively wide valley of made land bordered by gravel ridges of rock ledges and bluffs. The river has cut many channels through this soft bottom land and twists and winds from side to side of the valley, making it impossible to even approximate the location of the original meanders.

On looking over the surveys from 50 to 43, we note that the original field notes stop with survey 49, and that survey 47 & 48 are located by field notes made in 1892 by Mr. Williams. The old calls begin again at survey 542 and continue to the original S.E. cor sur 44.

On running the distance south from N.E. 50 to N.E. 43 we found that there was 79 varas over the even half mile width for each survey, or 128 varas more than called for by Mr. Williams survey.

We could not extend the calling south for the old surveys unless we had an original corner which required this extension, and I understood that Mr. Williams survey was intended to take up the surplus acreage in the old work, consequently it seemed better to give each survey south from N.E. 50 its call of 950 varas, and each survey its original 950 varas north from N.E. 43 and throw the excess into 47, where it would be considered either part of 47 or a tract of unsurveyed surplus land.

Consequently we gave sur 50, 49, 48, 44, 45, 46, each 950 varas southing and threw the surplus into 47 making it 1029 varas wid, subject to further instruction in the premises. We did not put in the west corners of these surveys as this construction might not be adopted, but we used this construction in calculating the bounds and acreage of the unsurveyed land west of them.

The relative position on the river of survey 50 and 44 do not fit the distances given for east and west lines in original field notes as we have not the original calls for the surveys corrected by Mr. Williams.

We gave the west lines of 50, 49, 48, the distances called for, 76 east, 324 west, 77 west, Then starting at the N.W. cor sur 43, set 3801 varas west of the original N.E. cor 43, we ran west 1041 to the S.W. cor 44, north 950 west 1118 to S.W. 45, north 950, east 186 to S.W. 541, north 950, west 349 to S.W. 542, north 950, east 340 to S.W. 47 as run from N.W. 50, as above noted.

But if we take the meanders as given on the working sketch of the field notes from N.E. 50 to S.W. 43 we find an easting of only 1138, Now attempt to close this by running west 3568 to N.W. 50 and along west lines 1204 east and 3801 east to N.E. 43 and we find an excess in westing of 300 vrs.

We must cut this down to close and we look for the error in sur 47, and make the westing to N.W. 46 340, which will close with our meanders between N.E. 50 and N.E. 43.

The S.E. cor sur 44, which is also the N.E. cor sur 43 is the best marked corner we found on the river. It calls for a bearing on each of three bluff and there are no such bluffs elsewhere in sight on the river, and the 3 calls fit the bluffs, each bearing pointing to either a prominent perpendicular face of the bluff, or the middle point fixed by the gable like top. At this corner we found a small rock pile partly covered over, and one of the rocks was marked "XVI" corresponding to Mr. Williams call at this corner. This mound was about 18" from the point at which all three bearings came together with a variation of 10° 41' E.

From this corner we meandered the river as before, taking points on the right bank or on bars in the bed of the river. Here we noted a very serious error in the field notes, they show a run of the river straight south, but on the ground the river runs S.E. running east 913 varas in the mile to south line of 42. Again the calls for the three bluffs are repeated at the N.E. cor 42, a palpable error as no such bluffs exist at that point, and the calls for the south line of 42 shows that both the river and the west line of sur 42 & 43 were figured due south lines.

The high land and ridges on the west of the present river make it physically impossible that its course should at any time have been due south for any distance from the N.E. cor. sur 33.

We continued our meander of the river and searched carefully for the bearing trees called for at S.E. 42, and S.E. 41, but found no trace of them. There were some large willows near S.E. 41, which were buried nearly up to the first branches, showing a fill of some 5' or 6', but no old mesquites near by.

We continued our meander line until we reached a rock mound under the fence supposed to be on south line of 38. This rock mound stood on the bank above the river bottom and showed signs of having been in place for a long time. It was not marked on any of the top rocks and I did not disturb it as that would destroy in part the evidence of age. I was told that this corner was found in place many years ago and has been locally recognized as the S.E. cor sur 38.

Here we again ran into one of Mr. Williams surveys, and the field notes show the river running S 59° 30' E for 575 varas. This I think is an impossible call allowing for the extreme possible change in the river bed.

We continued our meander line to the N.E. cor sur 37, and S.E. of 535. The original call for S.E. cor 535 is a Hackberry marked X on west bank of River below Pecos Spring. The Pecos spring is a well known spring, the old spring has dried up but its location is unmisstakeable, and the spring has been opened up and turned into a reservoir immediately below the old opening. A stump of a hackberry was shown us as the original marked tree, and a large hackberry stood close by. Although the bearing had been destroyed yet the statements of several witnesses and the position of the spring identified this as the original N.E. cor 37 and S.E. cor 535. Unfortunately we again were confronted with a corrected survey by Mr. Nelson who made such a serious error in correcting sur 545 as before noted, but as we had no other field notes we had to use his regardless of the fact that they were presumably wrong.

We continued our meander line to the S.E. 37, giving this survey its 950 varas southing. Here we found the river had eroded the west bank for some 50 varas or more of late years, and all trace of the corner noted by Mr. Williams had disappeared.

From this point we left the river and ran a traverse 1034 south and 341 west to a large rock on the south side of a draw and near an old road, which old rock was plainly marked I R on the under side.

We noted a call shown in Mr. Williams plat for an IR rock on the north line of survey 35 and presumably on the south line of 36, 1410 varas east of N.E. 35 with hackberry bearing S 52° 30' W 80 varas. There was no hackberry at this ^{NW} course and distance from this IR rock, but there were a number of small hckbry along the draw close by. at

From this IR rock we ran east, ~~to~~ 1574 varas passed 8 varas south of an unmarked rock mound on river bank, on 102 varas, 1676 in all to a point on the present river.

From N.E. 43 we had found nothing on the river except the old mound at S.E. 38, and the Pecos spring corner, N.E. 37.

Returning to the N.E. cor sur 43 we ran west, at about 3400 varas we passed 50 varas north of a rock mound said to be Lea's N.W. 43, on at 3700 passed close to a rock mound said to be Williams N.W. 43, on at 3801 made rock mound for N.W. 43, finding a rock mound N 5° W 37 varas, said to be Durrells N.W. 43.

This fixed the N.W. cor sur 43, but in the face of the contradictory calls for the east lines of these surveys, and the absence of any identified points on the river, the only thing we could do was to run the west lines as called for, although this would give us too much westing to close on the river call.

From N.W. 43 we ran 1916 varas south, east 161, south 958, west 283 to N.W. 39, south 1614, east 695, south 958, east 1529 to a point 244 varas north of N.W. 536, on east 3266, 4795 in all to the rock mound described above as marking the S.E. cor sur 38.

Returning to the 1529 vara point on south line 38 south 244 varas to N.W. 536, on south 672 varas to S.W. 536, west 29.5 varas to N.W. 535, south 672 varas to S.W. 535, east 388 varas to N.W. cor sur 37, thence east 3070 varas to hackberry corner at Pecos Spring, N.E. 37.

Returning to the N.W. cor sur 37 we ran south 950 varas, east 1790 varas to the N.W. cor sur 36, on east 2927, 4717 in all, to point on river for N.E. 36 and S.E. 37 as above noted. The call is for south line of 37 is 4794 varas, and our actual measure to the river is 77 varas short of this, and allowing for the erosion of west bank noted above, would probably close fairly well in spite of the increased westing from error in field notes of 43 & 42, and thus corroborating the position given the west lines of surveys from 43 to 36. Mr. Williams field notes show that he put 4600 varas in the south line of 36, but our measurement leaves only 4260 between S.W. 36 and the river.

In order to complete the connection between the above points on the river, we went to the S.E. cor sur 38 Blk. 1, known locally as the Lancaster

Report on Resurvey Blk 1, Pecos river.

corner. The map and field notes show this corner to be located on a peculiar sharp bend of the river, and call for a rock mound with two cedar bearings.

We found the river at this point encroaching on an old road way beside a rocky ridge. At the foot of the ridge was a scattered pile of rocks, from which the stump of what had been the larger cedar in sight bore as called for in the field notes, and another smaller cedar, still standing, fitted the call for the other tree. Mr. Williams states that he identified this corner in /92 and notes a clump of Hackberries which we found bearing as called for from the above described mound.

From this mound we ran a trverse back to the large IR rock above described as 84 varas south of the south line of sur 36, finding it to be 4250' varas north and 2960 varas west of the above described S.E. cor sur 32.

This shows a space of 534 varas in width between our south line of 36 and the north line of 35 by course and distance from S.E. 32. But we find that Mr. Williams has inserted a survey No 35 1/2 J. Swisher, between sur 35 and 36, to which he has given a width of 828 varas and a length of 4600' on the north line, out from the river, which makes a conflict between this sur 35 1/2 and sur 35, and on the west between sur 35 1/2 and survey 2 Blk 193 and sur 2 1/2 as shown later on.

In looking over the field notes of Blk 193 which was put in by Mr. Durrell in 1882, we find that the westing of 29.5 varas on east line of sur 6, and the easting of 388 and 1790 on east line of survey 5, correspond with the distances given on west line of 535, 37, and 36, and Mr. Durrells call for sur 5 to begin on Blk 1, also shows that these were probably the original calls on west line Blk 1, before Mr. Nelson made his corrected survey of 37. I note this as we did not have the original calls of survey 37.

This completes the meander of the river along Blk 1, I. & G.N. Ry. Co. from sur 69 to sur 37, with corners set on the west lines from sur 69 to sur 50, and from sur 50 to sur 36, as above related.

No 2. (See instructions Letter Book 1232/476)

Runnels County School Land No. 3

This survey under its original field made in 1881 by L.W. Durrell, calls to begin at the S.W. cor sur 70 Blk. 1, I. & G.N. Ry. Co. and by these field notes would contain 4428 acres or one league of land, but these calls do not fit the actual location of the west line of surveys in Block 1 and there is a consequent shortage in No 3, the junior survey.

Having established the S.W. cor of sur 70 Blk 1, as above related, we ran south 4912 varas and made the S.W. cor of sur 3 by course and distance from S.W. sur 70. We found a rock mound marked for the S.W. cor sur 3 at 340 varas east and 539 varas south of our corner, said to have been placed by Mr. Lea.

And at 2028 varas south and 1048 varas east we reached the N.W. corner of sur 36 Block 194 as run by course and distance from corners on the west as reported in our preliminary survey. This corner should be 238 varas further east to fit the excess in Blk 194 as related below.

Returning to the S.W. cor sur 3 and running east, at 8339 varas we reach the west line of sur 65 Blk 1, at a point 53 varas north of its S.W. corner as located by this survey.

Returning to the S.W. cor sur 70 and following the field notes of No 3, we find it calls to run "east 2494 varas, but the distance between S.W. 70 and N.W. 69 is only 2344 varas, making a conflict of 150 varas in easting.

The next call of No 3 is south 950 varas, but the distance found for sur 69 is 993 varas, so that No 3 will not reach the S.W. cor of 69 by 43 varas, losing to the older sur 69.

Thenext call is east 1202, while the offset in west line of Blk 1, is 1262 This 1102 together with the 150 easting beyond west line 69, makes 1252 from West line 69, which fails by 10 varas of reaching west line 68.

Next call south is 950, which will not reach north line 67 by 86 varas,

Next call east 656 is the same for No 3 and sur 67, leaving the line of No 3 still 10 varas west of west line 67,

Next call south 950 for No 3, fails to reach north line 545 by 129 varas

Next call of No 3 is east 1910, again the same as we found for original 545, which leaves the east line of 3 still ten varas west of west line 545

Next call of No 3 is south 950, which ~~leaves~~ fails to reach south line 545 by 172 varas,

Next call of No 3 is east 2177 varas while call for east line 65 is 2166 varas, throwing the east line No 3 and west line 65 together.

Next call of No. 3 is south 950, which will be a point on west line 65,

Next call east 298, we can not follow as it in rudes on the older sur 65,

Next call south 162 we can follow along the west line sur 65 to the point 53 varas north of S.W. 65 already located by extension of south line No 3 from its S.W. corner.

The above facts show the relative position on the ground of survey No 3, by following the calls of the original field notes, and I have made out field notes for corrected survey of No 3 on these data, showing a shortage of 167.2 acres, or content of 4260.8 acres instead 4428 acres.

But in as much as the evident intention of the original survey of No 3 was to take all the land immediately west of Blk 1, and as the original surveyor made no corners on the ground, it is possible that you may think it proper to extend the calls east for Sur No 3, to include the three ten vara strips of unoccupied land between west lines of 68, 67, 545, and east line 3. Consequently I have made a set of corrected field notes based on this extension as carrying out the intention of the original surveyor and attach them to this report, showing 4270 acres in No 3, under this construction.

Location of north line of Block 194 G.C. & S.F. Ry. Co.

The north line of this Block was located from its calls on the west, under my instructions from your Office, and was reported as part of the preliminary survey.

We started at the original N.W. cor sur 3 in Blk C4, a rock mound with 3 mountain bearings. It is also the S.W. cor sur 25 Blk 178, and S.E. cor sur 2 Blk Z. It is described as on a hill with a stone capped mountain in the valley N 25° W, another S 50° E, another South 1500 varas. We found the mound on the hill and the bearing on the hill in the valley is unmisstakeable, and the bearing S 50° E also fits.

We ran north from this point 8 miles and connected with a line we ran east from original N.E. 33 blk Z, the intersection of these lines gave an excess in northing of 106 varas in the 8 miles. Applying this pro rata to the surveys in Block 178 and 194, we located N.W. cor sur 5 Blk 194, at 11479 varas north of N.W. survey 3, Blk C4, as above described.

From this point we ran east and north as before reported, along the north line of Block 194, by placing the north corners of surveys 37, 36, 35, & 34, by the distances called for in their field notes east from the east line of Blk Z. On reporting that there was a line of original corners running east and south from N.W. 3 C4, through Blk C3 to N.E. cor sur 43 block A2, I was instructed to make the width of surveys in Blk 178 and Blk 194, east and west, accommodate itself to the calls for these C 3 surveys on south line of Blk 178.

On connecting our S.W. cor survey 65 with the south line of Runnels Co. No 3, as above related, we found that the N.E. cor of sur 104 T.C. Ry. Co. under the field notes of 101, 102, 103, 104, would be 7600 varas east of the S.W. cor No 3, where sur 101 called to begin, and as no marked corners are called for course and distance from this point would govern. We ran as above related 355 east from S.W. 65 for N.W. 64, then south 993 for S.W. 64, then west 511 for N.W. 63, and ran on west 583 varas and south 163 varas and put in the S.E. cor sur 104 7600 varas east and 1209 varas south of the above described S.W. cor sur No 3, and 819 varas north of the north line of 34 Blk 194, located from the west as above noted. From the N.W. cor sur 62 we ran across to the N.E. cor sur 34, Blk 194 and found it 11 varas north and 422 varas west.

In order to apply the excess easting to this N.E. cor sur 34, we went to the S.W. cor sur 42 Blk 1, as before described, and ran 430 varas north and 2181.5 varas west to a small rock mound in 4 mile draw, shown me as original N.E. sur 43 Blk A2. From this cor of sur 43 two bearings are given, one on the red gable bluff on the river used as a bearing for N.E. 43 Blk 1, which call fits from this rock mound, but the other call is for a round hill N 50° 30' W, and the only round hill near this course reads N 55° 30' W, I note that Mr. Williams in his report of survey made in '92 calls for this round hill as N 54° 30' W.

I was told that there was another rock mound west which would fit both bearings and ran on west until I reached a point S 50° E from round hill, but at this point I could not see the gable bluff on the river, and moved back to a point where I could get the course from the gable bluff and approximate the call for the round hill, but found no rock mound, neither could the men who had formerly seen this mound, find it. The road had been worked and raised on a dump near this point and it was suggested that the rock mound had been destroyed by the road work. In order to settle the matter definitely, I went to the S.W. cor sur 6 Blk C 3, a small mound in a flat with a well marked Mt. peak or bluff standing as called for in the field notes of this survey and ran a traverse back to the N.E. sur 43 Blk A 2, and found it 3 miles and 60 varas east and one mile and 23 varas south of this S.W. 6 Blk C3.

This connection with N.E. cor sur 43 Blk A2 and S.W. 42 Blk 1, showed an excess in easting from N.W. 3 C4, to S.W. 6 C3, of 43 varas to the mile for the 7 miles, and also showed an error in northing in this chain of old corners, as the distance north to north line of sur 34 Blk 194 was only barely enough for

Report on Resurvey of Blk 1 Pecos river.

the field note calls, while on the west we had an excess of 79 varas in the 6 miles. This might be a difference in variation used, only that our variation was first taken from the bearings of N.W.3 Blk C 4, and tested on corners in Blk 1, and on bearings at S.W.6 Blk C3,

The meridian through Blocks 178 and 194 would under my instructions, run from the N.W. cor sur 7 C3 to the west line sur 33 Blk 194.

This will place the N.E. cor sur 34, 238 varas east of its location from the west and 164 varas west and 11 varas north of our N.W. cor sur 62 Blk 1.

The calculation on which this is based is attached to this report. This shows that the east line of sur 34 will reach the north line of sur 61 at 1004 varas south from N.E. cor 4, at a point 192 varas east of N.W. 61.

This shows a tract of unsurveyed land lying between surveys No 3, 101, 102, 103, 104, on the north, surveys 34, 35, 36, 37, on the south, and surveys 61, 62, 63, & 64 on the east.

I attach field notes showing exact location and acreage of this tract. Mr. Ira G. Yates has made application for survey and purchase of this tract and as a matter of convenience I have made the field notes to cover this application.

Unsurveyed land between Block 1 and Blocks 194 and 178 and 193.

The above calculation of the position of N.E. cor sur 34 relative to the west line of Blk 1 I. & G. N. Ry. Co, based on the actual measurements above noted show that the lower N.E. cor sur 33 Blk 194 is 308 varas west and 256 varas north of the S.W. cor of sur 61 Block 1. From this S.W. cor sur 61, the west line of Blk 1 has been described as run out subject to approval of your Office. The east line of Blk 194 will run course and distance as called for in its field notes, as shown on Plat, until it reaches the S.E. cor sur 31, here we find that the S.E. cor of sur 31 is placed 2866.5 varas east of the east line of survey 21, which under my instructions to project meridians from corners in C3, will be 1943 varas wide hence the call on east line of 31, "east 997", must be increased 43 varas to 1040 varas.

Again the distance from S.E. 36 to N.E. 35 Blk 178 is given in the field notes of Blk 178 as 488 varas but when we insert the 20 varas per mile excess in surveys 34 & 35, found between N.W. 6 and N.E. 3 Blk C3, this distance becomes 528, and to preserve the relative distance of east line of sur 178 and east line of sur 35 same block we must increase the call east 216 on eastline sur 1, to 256.

At S.E. 3 block 178, original field notes show south line of 3 as 1888.5 vrs which would be 11.5 varas west of N.E. cor sur 2 Blk C3, but survey 2 Blk C3 is 1920 varas wide making it 31.5 from S.E. 3 to N.E. 2 Blk C3.

When we reach the north line of survey 39 Blk 1, we find 283 varas westing from S.W. 41 to N.W. 39, and only 220 varas to the east line of survey 9 Blk 193 consequently there is a slight conflict here and no vacancy, but the vacancy opens out again on the east line of sur 8 where this east line recedes westward. When we reach the north line of sur 1 1/2 we find it extending 9.3 vrs north of S.W. cor sur 37.

The details of the east and west lines of these tracts are attached to this report.

I was instructed to resurvey part of this tract as surveyed for Mr. Nolke by the County surveyor of Pecos Co. and I attach field notes covering this part of the unsurveyed land up to the south line of survey 44 Blk 1, where the field notes of Mr. Nolke's survey stopped according to the plat furnished me from your Office.

Mr. Holmes applied for 1280 acres of this strip to the Co. Sur. of Pecos County and I have made out field notes covering this 1280 which he wishes to buy.

Mr. Yates has applied to purchase 1280 acres out of the north part of this strip and I made him field notes to cover this part of the survey.

Of course these field notes of Mr. Holmes and Mr. Yates conflict, but as I had no authority whatever in the matter of determining the rights of the parties under their applications, I made the field notes so that there would be some definite basis for settlement or discussion.

Location of surveys in Block 193 Tex. & Mex. Ry. Co.

The field notes of Block 193 show that its south line is an extension west from the S.E. cor sur 32 Blk 1, and its north line is 100 varas north of the north line of sur 1 Blk C3, the S.E. cor of sur 1 Blk C3 being also the N.E. cor sur 43 Blk A2, above described. On connecting N.E. 43 A2 with the Lancaster corner it appeared that there was considerable excess in northing between these points, and I was instructed to distribute this excess pro rata among surveys in Blk 193, but to throw this excess into the adjacent

Report on resurvey of Blk 1, Decos River

School land.

Our measurement showed 58.15 varas excess in northing per mile, or 3.06 varas per 100. This was distributed along the line of Blk 193, and thrown into surveys 10, 8, 6, & 4, and surveys 9, 7, retaining their original calls, but when we came to survey 5 we had to include this excess in northing in survey 5 or tear it from its connection and relative position to 4 and 6. Also the excess being put into 4 and 2, we had to put it into 3, and 1 as well.

The details of this change in northing are given on the plat.

This survey and calculation showed that the east part of the north line of Survey 5 was 390.7 south of the south line of survey 37 as described above.

And that the N.E. corner of survey 5 was 715 varas west of the west line of Survey 37.

We put in the corners of sur 5 from these calls, corners and bearings are given in the attached field notes.

Survey 1 1/2 calls for both the middle east cor of sur 5 and for the N.W. corner of survey 36, but as my instructions were to disregard calls for the river block in construction of surveys tied to Blocks and corners on the west, we started survey 1 1/2 from the middle cor of sur 5. Sur 1 1/2 calls to run north 400 varas which will reach a point 9.3 varas north of the South line of survey 37, as 37 is the senior survey it will hold over sur 1 1/2, but west of survey 37, between its west line and the upper east line of sur 5 it can take its full distance of 400 varas and was so put in.

The location of the town of Sheffield has already been reported on, and in connection with this report all data necessary to determine its location have been reported.

The lines run and connections made with sur 5, sur 1 1/2 sur 36 and the river at S.E. 36, show that survey 2 1/2 begins at the S.E. cor sur 5 and will run north as called for, 400 varas. The call is thence east 694 varas, which would bring the N.E. cor of 2 1/2, 19.8 varas south and 21 varas east of the stake we set for the S.W. cor sur 36.

But Mr. Williams call for the north line of his sur 35 1/2, 4548.4 varas, will pass the S.W. cor 36 by 288.4 varas and conflict to that extent with the east part of sur 2 1/2.

This position of sur 1 1/2, 2 1/2, sur 5, sur 37, & 36, and 35 1/2 will leave an unsurveyed space between 36 and 5, This space Mr. Jessup applied to purchase and at his request I made field notes covering this tract, and forwarded a copy to your Office.

I believe the above covers all the facts in the determination of location of Blocks and surveys in question.

Certain matters had to be determined in the field, such as the better method of correcting the error in easting in west lines of surveys 46 & 47 Blk 1 and the insertion of the 79 varas excess in sur 47, and the acceptance of the rock mound at S.E. 38 as the holding corner, and consequent shortening of the width of sur 536 1/2, but as all matters are referred to your Office for approval or correction it was thought better to settle these matters temporarily in the field so that the survey could be completed on the ground and all data reported at once in this report,

Which is herewith respectfully submitted

R. S. Dod

State Surveyor

Alpine, Texas February 9 th 1919.

New Corners marked in Block 1 I. & G.N. Ry. Co.

- N.W. cor sur 72, a stake on the bank of the Pecos river from which
a white spot on a bluff bears N 5° 15' E
West edge cap rock bears N 5° 05' W,
North edge of cap rock bears S 58° 16' W,
Crack in bluff above NE 69 bears S 45° 20' E
- S.W. cor 72, Stake and rock mound from which
White spot on bluff bears N 3° 06' E
North edge cap S 84° 25' E
- S.W. cor sur 71 Stake and rock mound from which
South edge cap bears N 88° 05' W
West edge cap bears N 20° 28' E
- N.W. cor sur 70, Rock mound from which
Pointed peak bears N 24° 20' E
North edge caprock bears S 72° 18' E
- S.W. corner sur 70, Stake and rock mound from which
North edge cap of flat topped Mt. bears N 71° W
Middle of pointed peak bears N 20° 35' E
White spot on bluff bears N 1° 20' E
- N.E. corner sur 69, Rock mound on west bank of the Pecos River from which
Boulder at foot of cap rock bears N 65° E
East edge cap rock bears S 47° 15' E
West edge cap on pointed hill bears N 19° 05' W
Rock mound marked N.W. 64 bears S 1° 35' E 411 varas,
- N.W. cor survey 69 a stake and rock mound from which
West edge cap of pointed Mt. bears N 2° 15' W
South edge cap of flat top Mt. bears N 81° W
Windmill bears N 73° 35' W,
- S.W. corner 69, a rock mound from which
Middle of sharp topped hill bears N 1° 50' W
Cap rock N 80° E,
- N.W. corner survey 68 a rock mound from which
South edge flat top Mt. bears N 80° 40' W
East edge Cap bears S 0° 50' W
Cap rock bears N 67° 45' E,
- S.W. corner sur 68 a rock mound from which
Cap bears N 1° E
North edge flat top Mt. bears N 74° 35' W
- N.W. corner sur 67, a rock mound from which
North cap of pointed peak bears N 65° 30' W
East edge cap rock bears S 3° W
- S.W. corner sur 67, a rock mound, one rock marked "SW 67",
- N.W. corner sur 545, a rock mound at west foot of hill, from which
West end cap rock bears N 1° E,
Sharp topped hill bears S 71° 45' Wm
- S.W. corner sur 545, a rock mound on south side of road, from which
North edge table top Mt. N 62° 50' W
Cap rock on east edge of gap bears S 9° 50' E,
Windmill bears S 79° 45' E,
- N.W. corner sur 65, a rock mound on foot of slope from which
East edge gap bears S 13° 45' W
Cap bears S 80° 05' W
Windmill bears S 77° 24' W
- S.W. corner sur 65, a rock mound from which
East point of caprock seen through gap bears N 23° E
North edge cap bears S 89° 55' W,
White spot on ledge bears N 70° 05' E
Rock mound marked "N.W. 64" bears S 42° 30' E 208 varas,
- N.W. corner survey 64, a stake in a flat from which
West point cap rock bears S 49° 30' E
Windmill bears N 89° 30' E

- S.W. corner sur 64, a rock mound on east side of a rocky hill, from which
 Cap rock bears N 8° 35' E
 Windmill bears N 66° E
- N.W. cor sur 63, a rock mound on a ridge, on a flat rock, from which
 X on a ledge of rock bears S 40° 15' W 82 varas,
- N.W. sur 62, a rock mound on a ridge on east side of draw, from which
 one rock marked "N W 62",
- S.W. corner sur 62, a rock mound on a ridge, from which
 West side of a gap bears S 30° 30' W
 Square boulder on rocky point bears N 75° 57' W
- N.W. corner sur 61, a rock mound on east bank of draw in canyon, from which
 West edge cap bears N 12° 50' W
 West edge small capped hill bears N 10° 45' E,
- S.W. corner sur 61, a rock mound on east slope of high ridge about half way
 down, marked "S W 61", from which another rock mound
 bears east 184 varas, from which latter rock mound
 East edge of a cap rock bears N 19° 25' E,
 Boulder on a point bears S 38° 30' E,
- N.W. corner survey 60, a rock mound on east slope of west prong of Smith
 canyon, from which X on boulder bears N 56° 30' E 59 varas,
- S.W. cor sur 60, a rock mound on foot of ridge on north side of valley,
 from which White spot on cap rock bears S 83° 50' W,
 Projecting cap rock bears S 18° W,
- N.W. cor sur 59, a rock mound in a flat, from which
 Windmill at house bears N 48° 23' E,
 Cap rock bears S 70° 35' E
- S.W. cor sur 59, a rock mound on north side of a Mt. near top, from which
 Windmill at house bears N 25° 45' E
 Cap rock bears N 67° 20' E,
- N.W. cor sur 58, a rock mound in canyon on nose between two draws, from which
 Windmill at house bears N 2° 45' E, M
 Monument on Mt. bears N 19° W,
- S.W. cor sur 58, a Cap bears N 44° 30' W,
 a rock mound on terrace at foot of hill, from which
 Windmill bears S 63° 10' W,
 Hole in rock at foot of bluff bears N 88° 45' W
- N.W. cor sur 544, a rock mound in valley from which
 Windmill bears S 85° 35' W
 South edge of bluff bears S 18° 45' W about 400 varas,
 a rock mound bears S 9° 30' E 54 varas,
- S.W. cor sur 544, a rock mound in a flat, from which
 Small cave in ledge half way up Mt. bears South,
 Projecting cap rock bears N 89° W,
 Rock mound marked "SW 544" bears S 20° 50' E 28 varas,
- N.W. cor sur 543, a large rock marked "SW 543" set in the ground with
 smaller rocks around it,
- S.W. cor sur 543, a rock mound on north slope of ridge, from which
 Cap rock bears N 35° 10' W
 Cap rock seen over hill bears N 5° 30' W,
- N.W. cor sur 55, a rock mound near edge of bluff, from which
 North edge of cap near white spot bears N 50° E,
 Point of brown spot on ledge below highest point of nose
 bears S 3° E,
- S.W. cor sur 55, a rock mound on top of hill, from which
 "S W 55" marked on flat rock bears East 1 vara,
 East edge bluff bears S 22° W about 300 varas,
 White spot on rim rock bears N 43° 10' E
 Sharp topped hill bears N 26° W,
- N.W. cor sur 54, a rock mound on top of ridge from which
 Foot of rim rock bears S 52° 30' E
 Cap rock north of white spot bears N 37° E
- S.W. cor sur 53, Rock mound on north slope of ridge, from which
 Bluff bears N 10° 45' E about 500 varas,
 East edge cap bears N 11° 50' W,
- N.W. cor sur 52, a rock mound marked "N.W. 52" from which
 square boulder on point bears S 70° 50' E
 white spot on bluff bears N 32° 05' E
 Rock mound bears S 63° 30' E 66 varas,
- S.W. cor sur 52, a rock mound from which sharp peak bears S 4° 30' E,
 Top point of bluff bears S 55° 15' E,
 Rock mound bears S 64° 30' E 72 varas,

- N.W.cor sur 51, a rock mound on a mesa from which
Bluff bears N 27° 47' E,
Cap rock bears N 19° 30' W,
- S.W.cor sur 51, a rock mound on a narrow backbone, on large flat rock, from
which Foot of bluff bears S 58° E,
Column of square boulders bears S 62° 30' W
"S W 51" marked on flat rock bears N 70° E 2 varas,
- N.W.cor sur 43, a rock mound at foot of hill, from which
Cap rock bears S 54° 45' E
Cap rock bears S 4° W
Rock mound bears N 5° W 37 varas,
- S.W.cor sur 42, a rock mound in a flat, from which
Gable bluff bears N 75° E,
Projecting perpendicular red bluff bears N 57° 15' E,
Sharp rock capped peak bears N 28° W,
South end of cap rock bears East,
- N.W.cor sur 41, a rock mound in a flat marked "N2 41",
- S.W.cor sur 41, a rock mound on rock ledge, on south side of canyon, from
which middle one of three pointed hills bears N 3° 15' E,
cap rock bears S 78° 35' W,
- N.W.cor sur 39, a rock mound on east side of canyon marked "N W 39",
- N.W.cor sur 38, a rock mound on west edge of canyon from which
Pointed hill bears S 20° 50' E,
Point of ledge on nose of hill bears S 88° 15' W,
- S.W.cor sur 38, a rock mound on a ledge, flat boulder near corner marked
"SW 38" from which
Cap rock bears N 29° 50' E,
Pointed hill bears S 33° 25' E,
- N.W.cor sur 37, an iron pipe and rock mound from which
cap rock bears N 10° 15' E
Gap in pointed hill bears N 74° 15' W,
Pinnacle of boulders on dyke bears S 12° 45' W
- S.W.cor sur 37 Rock mound marked "S W 37" on south side of road, from which
Square top pinnacle bears S 25° 47' W
Gap in pointed peak bears N 30° 30' W,
East edge of cap rock bears S 24° 25' E,
- N.W.cor sur 36, a rock set in the ground marked "NW 36" from which
Projecting lower cap on nose of hill bears S 0° 05' E,
Projecting cap bears S 76° 35' W,
- S.W.cor sur 36, a stake in a field from which a post marked X bears
N 0° 53' E 42.5 varas,

New corners marked in Block 193 Tex. & Mex. Ry. Co.

- S.E.cor sur 5, a rock mound from which
Pile of square boulders bears N 69° 30' W
Gap in round hill bears N 39° W,
- N.E.cor sur 3, a rock mound on south line sur 5 from which
Pinnacle of square boulders bears N 46° 30' W,
Crack between boulders on rim rock bears S 19° 20' W,
- S.W.cor sur 5 and N.W.cor sur 3, a rock mound on ridge at head of draw from
which a bluff bears N 48° 30' E
another bluff bears S 73° 45' E,
- N.E.cor sur 4, a stake and rock mound marked N.E.4, set 85 varas east of
lower N.W.cor sur 5,
- Lower N.W.cor sur 5, a rock mound from which
Pinnacle of square boulders bears S 51° 40' E
Bluff bears S 20° 25' W,
- N.W.cor sur 5, a rock mound on east slope of ridge, from which
Pinnacle of square boulders bears S 44° 15' E
Bluff bears S 9° W
Oil derrick bears S 4° W,
- N.E.cor sur 5, a rock mound in flat from which Rim rock bears S 78° W
Pinnacle of square boulders bears S 12° 45' E,

See also Report received March 3rd, 1921.

Determination of excess easting in Block 194

By actual survey of meanders of Pecos			
from orig N.E.43 Blk 1, west to N.E.50,		1924.4	
" " N.E.50 " to orig. N.E.55,		1696.6	
" " N.E.50 " " " N.E.60,		4302.2	
		<u>7923.2</u>	
" " N.E.60, east to N.E.62,		668.1	
By actual measurement		7255.1	
from N.E.62 west to N.W.62		4243.9	
" N.W.62 " N.E.34 Blk 194		422.0	
" N.E.34 Blk 194 to N.W.33 " "		2023.5	
" N.W.33 " S.W.5 "		11400.0	
		<u>25343.6</u>	25343.6
From orig N.E.43 Blk 1, west to wbl 42 & 43		3801.0	
" wbl 42, west to ebl 9 & 10 Blk 193		220.0	
" ebl 9 Blk 193 to N.E.43 Blk A2		1961.5	2181.5
" orig N.E.43 A2 to orig N.W.5 C3		5760.0	
" " N.W.5 C3 to orig N.W.3 C4 call		13300.0	
		<u>25042.5</u>	25042.5
	Excess in 7 miles	301.	
	" 1 "	43.0 varas	

Determination of width of unsurveyed State Land lying between west line of sur 61 Blk.1, and east line sur 33 Blk 194.

From meanders above,			
from N.E.43 Blk 1, to N.E. 62, west		7255.	
" N.E.62 " to N.W. 62, "		4243.	
" N.W.62 " to N.E. 33 Blk 194		164.	
" N.E.33 "194 to N.W. 33 " "		2023.5	
		<u>13685.5</u>	13685.5
From N.E.43 Blk 1 to wbl 42		3801.	
" wbl 42 to ebl 9 blk 193		220.	
" ebl 9 to N.E.43 A2		1961.5	
" N.E.43 A2 to N.W.5 C3		5760.	
" N.W. 5 C3 to wbl 8 C3		1943.	
		<u>13685.5</u>	13685.5
From wbl 62 Blk 1, to N.E. 33 Blk 194		164.	
" N.E.33 Blk 194 to 2nd N.E.33 "		500.	
		664.	
" S.W.62 to N.W.61 Blk 1,		356.	
Width of unsurveyed tract on north,		308. varas.	

Note, The S.W. cor sur 5 Blk 194 was located due north of original N.W.3 C4. The distance east, 6 miles to N.E.28 and on to N.E.34 was actually measured and marked on the ground. The true location of N.E.28, under my instructions is due north of S.W.8 C3. Therefore we located the original N.E.43 A2, and N.W.5, N.E.8, on the ground, found the average excess from that point to N.W.3 C4 to be 43 varas, and placed N.W.33 258 varas east of actual distance from S.W.5, or due north of S.W.8 C3.

(Boundaries of unsurveyed tract follow)

Meanders of the Pecos River
 from N.E. corner 69, Block 1, I. & G.N. Ry. Co.
 from survey made Oct. & Dec. 1918
 by R.S. Dod,
 State Surveyor.

Course	Dist.	N.	S.	E.	W.			
N 58° 15' E	303.	159.3		257.5				
N 76° 15' E	186.	44.0		180.6				
S 76° 45' E	160.		362.66	155.7				
S 79° 45' E	245.		43.6	241.1				
N 73° 30' E	578.	164.1		554.3				
N 80° E	213.	36.9		209.8				
S 60° E	91.0		45.5	78.8				
S 59° 35' E	249.		126.0	218.6				
S 33° E	30.		25.1	16.3				
S 13° W	185.		180.2		41.6			
S 1° 45' E	65.		64.9	1.9				
S 41° 45' W	231.		172.3		153.8			
S 25° 45' W	375.		337.5		162.7			
S 84° 15' E	331.		33.2	329.3				
S 57° 45' E	262.		139.6	221.4				
N 74° E	293.	80.5		281.5				
S 76° 45' E	190.		43.5	184.8				
S 54° 45' E	417.		240.6	340.5				
N 79° 45' E	163.	30.0		160.4				
S 63° 30' E	411.		183.3	367.8		43	S 973.8 E 3074.4	
							19.6 38.4	S.E. 69
							993. 3112.8	
S 35° 35' E	188.		152.8	109.4				
S 24° 30' E	481.		437.6	199.4				
S 48° 30' E	107.		70.8	80.1				
S 25° 30' E	47.		42.3	20.2				
S 52° 50' W	179.		108.1		142.6	17.4	975.7 597.6	
S 5° W	149.3		149.3		13.0		17.3 1.4	
East	2.			2.0			993. 596.2	S.E. 68
S 4° E	193.		192.5	13.4				
S 0° 10' E	360.		360.0	1.0				
S 58° 30' E	352.		183.7	300.0				
N 79° 45' E	295.	52.5		290.3			815.7 593.1	
S 30° 15' E	437.		377.3	220.2		205.2	177.3 102.6	
S 68° 10' E	368.		136.9	341.5			993 695.7	S.E. 67
S 25° 10' E	290.		262.4	123.2				
S 85° E	731.		63.6	728.0				
N 51° E	390.	245.5		303.0				
S 85° 30' E	384.		64.0	382.8				
S 75° 15' E	251.		229.9	242.7				
S 38° 30' E	239.		186.9	149.6				
S 86° E	291.		20.2	289.2				
S 66° 45' E	513.		202.6	470.9				
N 61° E	90.	43.6		78.6				
S 86° 15' E	102.		6.6	101.7				
S 56° 15' E	105.		58.4	87.2			942.4 3416.0	
S 47° 30' E	549.		370.9	404.7		73.5	50.6 64.1	
S 36° E	278.		224.9	163.4			993 3470.1	S.E. 545
S 24° 30' E	128.		116.4	53.1				
S 4° 05' W	199.		198.4		14.1			
S 17° 15' E	253.		240.6	74.9			1100.6 627.9	
						112.7	107.6 33.3	SE. 65
							993 594.6	
S 25° 30' E	178.		160.2	76.5				
S 29° E	344.		300.6	166.8				
S 39° 45' W	276.		289.0		240.2			W.
S 48° 45' W	333.		219.3		250.3		1076.7 213.9	
S 40° 30' W	288.		218.8		186.0	127.	33.7 95.3	
S 29° 45' E	172.		149.3	85.3			993. 118.6	S.E. 64
S 49° 45' W	252.		162.8		192.2			
S 17° 45' W	202.		192.3		61.5			
S 21° 45' W	76.		70.5		28.1			
S 27° 20' W	190.		168.7		87.2		1046.1 565.0	
S		856.4	7859.7	9359.1	1573.3	59.8	53.1 27.5	
			7003.3	7785.8			993 537.5	

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counter 33810

Course	Dist.	N. brt frd	S.	E.	W.	S	E	W
			7003.3	7785.8		53.1		27.5
S 33° 30' W	244.		204.0		133.7			
S 41° 30' E	206.		154.3		136.3			
S 37° 30' W	342.		271.2		208.0			
S 18° 30' W	140.		132.7		44.3			
S 27° 45' W	380.		336.3		176.9			
						1151.6		226.7
						179.2	158.6	83.3
						993.	S.E. 62	643.4
S 16° 30' W	69.		66.1		19.6			
S 26° 30' W	271.		242.6		120.8			
S 22° E	237.		219.7	88.6				
S 33° E	189.		158.3	102.8				
S 26° 25' E	86.		76.9	38.2				
S 20° 15' E	79.		74.1	27.3				
N 87° 30' W	58.	2.5			58.0	993.8		24.8
			8939.5	8042.7	897.6	8937.0	7145.3	S.E. 61
			2.5	897.6				
			8937.0	7145.1				
S 42° E	276.		205.0	184.6				
S 86° 30' E	310.		18.9	309.3				
S 53° E	350.		210.7	274.3				
S 82° 30' E	325.		42.2	321.7				
S 68° 30' E	215.		80.4	199.3				
S 37° 45' E	239.		189.8	146.2				
S 77° 30' E	250.		54.0	244.0				
S 38° 40' E	302.		235.5	188.7				
						S.	E.	
						1036.5	1868.1	
						62.2	48.5	38.8
						988.0	1829.3	S.E. 60
S 83° E	444.		54.1	440.1				
S 23° E	22.		20.2	2.5				
S 22° 45' E	286.		263.6	110.4				
S 88° E	127.		3.4	126.9				
S 86° E	370.		25.7	368.8				
S 52° 30' E	394.		239.5	312.5				
S 3° W	161.		160.6		8.3			
S 45° 30' E	375.		262.5	266.2				
						1078.1	1657.9	
						128.7	90.1	91.6
						988.	1566.3	
S 21° 45' E	530.		492.2	196.1				
S 22° 45' E	329.		303.3	127.3				
S 46° 40' E	130.		89.1	94.5				
S 13° W	168.		163.6		37.8	12.6	12.3	2.8
S 35° 45' E	770.		624.5	449.7				
S 16° 45' E	191.		181.8	54.7				
S 8° 15' W	221.		218.5	333.6	31.6	31.6	30.4	8.6
S 16° W	523.		502.6		143.8			
S 71° 15' E	194.		62.4	133.7				
S 6° 45' W	238.		236.2		27.8			
			4940.3	4551.6	249.3	4940.3	4302.2	N.E. 55
				249.3				
				4302.2				
S 13° E	358.		348.7	80.5				
S 55° 45' E	388.		218.4	314.4				
S 39° 30' E	114.		87.9	72.4				
S 36° E	289.		233.8	169.7				
S 21° E	197.		183.7	70.5				
S 16° 30' W	532.		510.1		151.0	65.6	61.2	23.5
S 25° 30' W	98.		88.2		42.1			
S 29° W	224.		195.7		110.8			
S 53° E	56.		33.7	45.7				
			1900.2	753.2	303.9	1900.2	449.3	
				303.9				
				449.3				

Course	Dist.	brt frd	N.	1900.2	449.3	W.	S.	E.
				S.	E.		1900.2	449.3
S 53° E	62		XXX	37.3	49.5			
S 1° 15' E	34.			34.0	.7			
S 12° 45' E	80.			77.6	17.6			
S 9° 15' W	270.			266.5		43.2		
S 3° E	340.			339.5	17.6			
S 45° E	141.			99.6	99.6		854.5	141.8
S 7° E	266.			257.9	32.4		96	95.5
S 65° 15' E	235.			98.4	213.3			11.7
S 65° 15' E	235.			98.4	213.3			950.
S 26° 15' E	189.			169.5	83.5			153.5
S 50° 45' E	239.			151.3	185.0			
S 7° 15' E	307.			304.5	38.7			
							948.5	754.5
S 40° 45' E	414.			313.4	270.3		34.8	34.5
S 8° W	263.			260.4		36.5		4.3
S 54° 30' E	263.			152.5	214.0			950.
S 16° E	162.			155.6	42.5			750.2
South	22.			22.0				
S 89° 40' W	164.			0.8		164.0		
south	11.			11.				
					14.0			950.
				2850.4	1941.3	243.7		344.6
							2850.2	1697.6
								N.E.50
S 62° 05' E	265.			124.0	234.0			
S 55° E	98.			56.2	80.2			
S 11° 30' E	149.			147.0	29.7			
S 45° 30' W	210.			147.2		149.8		
S 86° 15' E	194.			12.7	193.5			
S 9° 45' E	146.			143.8	24.6			
S 3° E	215.			214.7	11.2			
N 77° E	90.	20.2			87.7			
S 2° 30' W	125.			124.8		5.4	950.2	505.7
S 2° 30' W	305.			304.7		13.2		
S 67° 45' E	114.			43.0	105.4			
S 1° 30' E	261.			260.9	6.8			
S 7° 30' E	166.			164.3	21.5			
S 39° 30' W	230.			178.0		145.6	950.0	W 25.1
N 67° 20' W	136.	52.3				125.4		
N 60° E	51.	25.5			44.1			
S 15° 10' E	436.			420.7		113.8		
S 28° 10' E	293.			258.0	138.3			
S 66° 20' E	86.			35.8	78.0			
S 17° 15' W	135.			128.9		40.0		
S 27° W	154.			144.6		52.6		
S 29° 15' W	46.			40.0		21.4	950.2	92.8
S 29° 15' W	210.			183.4		103.6		
S 64° W	240.			105.2		215.6		
S 9° 35' E	142.			140.0	23.5			
S 43° 40' W	94.			67.9		64.8		
S 44° 30' W	130.			92.7		91.1		
S 52° W	53.			32.6		41.7		
S 76° W	187.			45.2		181.4		
S 1° 10' W	362.			362.0		7.2	1029.	661.9
S 1° 10' W	59.			59.0		1.2		
S 82° 50' E	126.			15.7	125.0			
S 66° 25' E	106.			42.4	96.7			
S 61° 50' E	264.			124.6	232.5			
S 26° 50' E	204.			181.9	92.0			
S 59° 30' W	220.			111.6		189.4		
S 11° 30' E	300.			293.9	59.8			
S 38° 15' E	122.			95.7	75.5			
S 29° 45' E	29			25.2	14.4		950	505.3
		98.0		4928.3	1774.4	1563.2		
				98.0	1563.2			
				4830.3	211.2		S 4830.3	211.2 E

Course.	Dist.	N. brt frd	S.	E.	W.	S	E
			4830.3	211.2		4830.3	211.2
S 29° 45' E	128.		111.0	13.8			
S 10° 10' E	185.		182.0	32.5			
S 8° E	156		154.4	21.7			
S 15° 30' W	486.		468.3		129.8		
S 34° 30' W	42.		34.3		23.7	950.	W 85.5
S 34° 30' W	143.		118.1		81.0		
S 45° 10' W	332.		234.0		235.3		
S 7° W	227.		225.1		27.7		
S 29° 45' E	176.		152.7	87.3			
S 60° 50' E	173.		84.2	151.0			
S 48° 30' E	23.		15.2	17.2			
S 33° 15' E	110.		91.9	60.2			
S 25° 45' E	32.		28.8	13.8		950.	14.5
S 25° 45' E	326.		293.6	141.7			
S 8° 45' E	121.		119.5	18.4			
S 57° 30' E	390.		209.4	286.6			
N 41° E	92.	69.3		60.3			
N 43° 50' W	159.	114.6			110.0		
N 5° 15' W	65.	54.7			5.9		
S 67° 30' E	51.		19.5	47.1			
S 46° 45' E	87.		59.6	63.3			
S 40° 30' E	90.		68.4	58.4			
S 54° 10' E	36.		21.0	27.1			
S 40° 45' E	370.		272.8	241.6			
N 48° 20' E	148.	98.4		110.5			
N 71° 35' E	375.	118.4		355.7			
N 75° E	110.	28.4		106.2			
N 84° 45' E	72.	6.6		71.7			
S 55° 35' E	182.		102.8	150.1			
S 34° 30' W	13.		10.6		7.2		
S 43° 50' E	473.		341.0	327.5			E
N 58° 50' W	152.	78.5			129.9	949.3 1813.2	N.E.43
		568.9	8248.5	2674.9	750.5	7679.6 1924.4	
			568.9	750.5			
			7679.6	1924.4			
S 64° 30' E	208.5		89.6	187.6			
S 37° 50' E	172.5		136.2	105.8			
S 38° 35' E	130.		101.6	80.8			
S 57° E	115.		63.5	96.3			
S 26° E	57.		50.3	26.7			
S 3° E	412.		411.1	21.4			
S 45° 45' E	151.5		105.7	107.8		958.	626.1 S.E.43
S 45° 45' E	41.5		29.0	30.7			
S 16° E	171.		164.3	47.0			
S 52° 45' E	210.		209.7	10.0			
S 11° E	123.		120.5	23.4			
S 23° 45' E	375.		343.0	151.1			
S 15° 30' E	98.		91.5	25.6		958.	287.8 S.E.42
S 15° 30' E	14.		13.6	3.7			
S 14° 30' E	602.		582.7	150.5			
S 9° E	165.		162.8	25.7			
S 34° 10' E	240.		198.9	134.6		958.	314.5 S.E.41
S 34° 10' E	351.		289.8	196.9			
S 72° 10' E	60.		24.0	57.0			
S 27° 35' E	419.		371.2	194.0			
S 1° 20' W	213.		212.7	10.2	4.9		
S 15° 50' E	63.		60.3	16.2		958.0 459.2	S.E.40
			3832.0	1692.5	4.9	3832.	1687.6
				1687.6			

Course.	Dist.	N. brt' frd	S. 3832.0	E. 1687.6	W.		
S 15° 50' E	315.		303.3	87.0			
S 0° 10' W	74.		74.0				
S 9° 45' W	419.		412.6		70.8	789.9	16.0
S 26° 15' W	164.		146.9	72.4	72.4	136	134.0
South	392.		392.0				655.9
S 3° 15' W	117.		116.7		6.5		39.0 S.E.39
S 3° W	92.		91.8		4.7		
S 1° W	75.		75.0		1.2		
N 89° W	31.	0.5			31.0		
S 86° W	20.		1.5		20.0	957.4	S.E.38 W 158.8
East	51.			51.0			
S 13° 50' W	250.		242.7		59.7	242.7	8.7
S 16° 30' E	31.		29.8	8.8		244	S.E.536 1/2
S 14° 30' E	278.		269.2	69.5			
S 10° 10' E	326.		325.7	57.4		619.7	135.7
S 25° 40' W	373.		336.0		161.5	54.3	26.0
S 61° E	285.		138.2	249.1		674.0	109.7
S 5° 15' W	280.		278.6		25.6	672.	S.E.356.
(N 44° 30' W ³⁷ to cor.)	(26.3)				(25.9)	698.5	88.0
S 59° 30' E	266.		134.8	249.0		26.3	25.9
S 60° 45' E	571.		278.6	497.8		672.0	62.1 Pecos Sp. N.E.37
N 80° 45' E	175.	38.8		172.6			
S 32° 45' E	200.		168.0	108.0			
N 75° 50' 3	423.	103.2		409.9			
N 48° 45' E	168.	110.7		126.3			
S 23° E	410.		377.2	159.9			
S 26° 15' W	231.		207.0		102.0	950.	1647.4
		242.4	8226.6	3933.9	555.6	S 7984.2	3378.3 E
			242.4	555.6			S.E.37
			7984.2	3378.3			
S 26° 15' W	143.		128.3		63.2		
S 23° 15' W	99.		90.8		39.0		
S 16° W	419.		402.6		115.3		
S 16° 45' W	431.		412.4		124.1		
			1034.1		341.6		to IR rock.
							1034.1
							84.1
						950.	E 1333.to River S.E.36

	N.	S.	E.	W.
Lancaster Cor. to IR rock				
N 89° 15' W	230.	2.0		230.0
N 36° 15' W	160	128.9		94.5
N 37° 30' W	610	483.7		370.8
N 37° 10' W	3530.	2814.4		2132.1
N 18° W	620.	589.6		191.6
N 14° 15' E	240.	232.5	59.0	
	4250.1			3019.0
				59.0
				2960.0

(East side Unsurveyed State Land continued)

30
S. W. 1/4 of Section 10, T. 10 N., R. 10 E., Co. 10, Mex. & Tex. Ry. Co. and
S. W. 1/4 of Section 11, T. 10 N., R. 10 E., Co. 10, Mex. & Tex. Ry. Co.

Thence	west	318	varas with the south line of sur 51	to S.W.cor	51
	north	950	" " west	"	51
	west	546	" " south	"	50
	north	950	" " west	"	52
	west	564	" " south line	"	53
	north	950	" " west line	"	53
	west	65	" " south	"	54
	north	950	" " west	"	54
	west	216	" " south line	"	55
	north	950	" " west	"	55
	west	400	" " south	"	543
	north	988	" " west	"	543
	west	285	" " south	"	544
	north	988	" " west	"	544
	west	445	" " south	"	50
	north	988	" " west line	"	58
	west	947	" " south	"	59
	north	988	" " west line	"	59
	west	1439	" " south	"	60
	north	988	" " west	"	60
	west	1171	" " south	"	61
	north	268	" " west line	"	61 to place of

South part of Unsurveyed tract.

Beginning at the lower N.E. corner of survey 8 Blk 193 Tex. & Mex. Ry. Co.

Thence	south	1687.8	varas with east line of sur 8	to an east cor	8
	east	695	" " " 8	"	8
	south	955.3	" " " 8 & 7	to	7
	east	1034	" " " 7	to	7
	south	679.2	" " " 7 & 6	to	6
	west	29.5	" " " 6	to	6
	south	692.6	" " " 6	to	6
	east	388	" north	"	5
	south	579.1	" east	"	5
	east	715	" north line 1 1/2	to east line 37 Blk. 1	
	north	940.7	" east	"	37
	west	388	" south line	535	to S.W. 535
	north	672	" west	535	to N.W. 535
	east	29.5	" north line	535	to S.W. 536
	north	672	" west	536	to N.W. 536
	east	866	" north line	536	to S.W. 536 1/2
	north	244	" west	536 1/2	to N.W. "
	west	2395	" south	"	38
	north	958	" west	"	38
	west	695	" south line	38	to S.W. 39
	north	1108	" west	"	39 to point in east line 8
	west	220	" east line	8	to place of beginning.

Alpine, Texas, Feb 10 1919

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

Dear Sir,

I herewith submit report, on Resurvey of various Blocks of Land on the Pecos River above Sheffield.

It has taken a long time to compile plat and report as the reconstruction of the surveys was involved on account of junior surveys intervening between surveys in the older Blocks, the field notes not conforming either to older work or to facts on the ground.

I think we have so collated all the data that the questions at issue may be intelligently passed on.

I have tried to condense the report and avoid relating unnecessary details of survey, and state only those facts that have a direct bearing on the location of boundaries.

I have enclosed copies of field notes for the applications for purchase made by both Mr. Yates and Mr. Holmes, explaining to these men that I had no authority whatever in the matter, and made out the field notes simply as a matter of convenience so that the matter could be intelligently discussed with your office.

Any further explanation or information will gladly be furnished, if required, and within my ability.

Respectfully

P. R. Dod

P.S. I am sorry I had to cut the Plat in two, but the men who paid for the survey wanted copies and my print frame would not take the whole map.

*Last instructions in Letter Book 1232
476*

See also Dod's report received 3-3-19

Pecos Co. Sk. F. 41. P. 2^d

See Microfilm Engineering Data: Reel 25, these sheets under Pecos Co. Sk. F. 41
11-14-1997 dsj

RRX (4)

Course.	Dist.	N. brt frd	S.	E.	W.	S	E
			4830.3	211.2		4830.3	211.2
S 29° 45' E	128.		111.0	13.8			
S 10° 10' E	185.		182.0	32.5			
S 8° E	156.		154.4	21.7			
S 15° 30' W	486.		488.3		129.8		
S 34° 30' W	42.		34.3		23.7	950.	W 85.5
S 34° 30' W	143.		118.1		81.0		
S 45° 10' W	332.		234.0		235.3		
S 7° W	227.		225.1		27.7		
S 29° 45' E	176.		152.7	87.3			
S 60° 50' E	173.		84.2	151.0			
S 48° 30' E	23.		15.2	17.2			
S 33° 15' E	110.		91.9	60.2			
S 25° 45' E	32.		28.8	13.8		950.	14.5
S 25° 45' E	326.		293.6	141.7			
S 8° 45' E	121.		119.5	18.4			
S 57° 30' E	390.		209.4	286.6			
N 41° E	92.	69.3		60.3			
N 43° 50' W	159.	114.6			110.0		
N 5° 15' W	65.	54.7			5.9		
S 67° 30' E	51.		19.5	47.1			
S 46° 45' E	87.		59.6	63.3			
S 40° 30' E	90.		68.4	58.4			
S 54° 10' E	36.		21.0	27.1			
S 40° 45' E	370.		272.8	241.6			
N 48° 20' E	148.	98.4		110.5			
N 71° 35' E	375.	118.4		355.7			
N 75° E	110.	28.4		106.2			
N 84° 45' E	72.	6.6		71.7			
S 55° 35' E	182.		102.8	150.1			
S 34° 30' W	13.		10.6		7.2		
S 43° 50' E	473.		341.0	327.5			
N 58° 50' W	152.	78.5			129.9	E 949.3 1813.2 N.E.43	
		568.9	8240.5	2874.9	750.5	7876.6	1924.4
			568.9	750.5			
			7879.6	1024.4			
S 64° 30' E	208.5		89.6	187.6			
S 37° 50' E	172.5		136.2	105.8			
S 38° 35' E	130.		101.6	80.8			
S 57° E	115.		63.5	96.3			
S 28° E	57.		50.3	26.7			
S 3° E	412.		411.1	21.4			
S 45° 45' E	151.5		105.7	107.8		958.	626.1 S.E.43
S 45° 45' E	41.5		29.0	30.7			
S 16° E	171.		164.3	47.0			
S 22° 45' E	210.		200.7	10.0			
S 11° E	123.		120.5	23.4			
S 23° 45' E	375.		343.0	151.1			
S 15° 30' E	98.		91.5	25.6		958.	287.8 S.E.42
S 15° 30' E	14.		13.6	3.7			
S 14° 30' E	602.		582.7	150.5			
S 9° E	165.		162.8	25.7			
S 34° 10' E	240.		198.9	134.6		958.	314.5 S.E.41
S 34° 10' E	351.		289.8	196.9			
S 72° 10' E	60.		24.0	57.0			
S 27° 35' E	419.		371.2	194.0			
S 1° 20' W	213.		212.7		4.9		
S 15° 30' E	63.		60.3	16.2		958.0	459.2 S.E.40
			3832.0	1692.6	4.9	3832.	1692.6
				1687.8			

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Course	Dist.	brt frd.	1900.2	449.3	W.	S.	E.
S 53° E	62	XXXX	37.3	49.5		1900.2	449.3
S 1° 15' E	34.		34.0	.7			
S 12° 45' E	80.		77.8	17.6			
S 9° 15' W	270.		266.5		43.2		
S 3° E	340.		339.5	17.6			
S 45° E	141.		99.6	99.6		854.5	141.8
S 7° E	266.		257.9	32.4		95.5	11.7
S 65° 15' E	235.		98.4	213.3	98	950.	153.5
S 65° 15' E	235.		98.4	213.3			
S 26° 15' E	189.		169.5	83.5			
S 50° 45' E	239.		151.3	185.0			
S 7° 15' E	307.		304.5	38.7		948.5	754.5
S 40° 45' E	414.		313.4	270.3		34.8	4.3
S 8° W	263.		260.4		36.5	950.	750.2
S 54° 30' E	263.		152.5	214.0			
S 16° E	162.		155.6	42.5			
South	22.		22.0				
S 89° 40' W	164.		0.8		164.0		
South	11.		11.				
				14.0		950.	344.6
			2850.4	1941.3	243.7	2850.2	1697.6
						N.E.50	
S 62° 05' E	265.		124.0	234.0			
S 55° E	98.		56.2	80.2			
S 11° 30' E	149.		147.0	29.7			
S 45° 30' W	210.		147.2		149.8		
S 86° 15' E	194.		12.7	193.5			
S 9° 45' E	146.		143.8	24.6			
S 3° E	215.		214.7	11.2			
N 77° E	90.	20.2		87.7			
S 2° 30' W	425.		124.8		5.4	950.2	505.7
S 2° 30' W	385.		384.5		13.2		
S 67° 45' E	114.		43.0	105.4			
S 1° 30' E	261.		260.9	6.8			
S 7° 30' E	166.		164.3	21.5			
S 39° 30' W	230.		178.0		145.6	950.0	25.1
E 67° 20' W	136.	52.3			125.4		
N 60° E	51.	25.5		44.1			
S 15° 10' E	436.		420.7		113.8		
S 28° 10' E	293.		258.0	138.3			
S 86° 20' E	86.		35.8	78.0			
S 17° 15' W	135.		128.9		40.0		
S 27° W	154.		144.6		52.6		
S 29° 15' W	46.		40.0		21.4	950.2	92.8
S 29° 15' W	210.		183.4		103.6		
S 64° W	240.		105.2		215.6		
S 9° 35' E	142.		140.0	23.5			
S 43° 40' W	94.		67.9		64.8		
S 44° 30' W	130.		92.7		91.1		
S 52° W	53.		32.8		41.7		
S 76° W	187.		45.2		181.4		
S 1° 10' W	362.		362.0		7.2	1029.	661.9
S 1° 10' W	59.		59.0		1.2		
S 82° 50' E	126.		15.7	125.0			
S 66° 25' E	106.		42.4	96.7			
S 61° 50' E	264.		124.6	232.5			
S 26° 50' E	204.		181.9	92.7			
S 59° 30' W	220.		111.6		189.4		
S 11° 30' E	300.		293.9	59.8			
S 38° 15' E	122.		95.7	75.5			
S 29° 45' E	29		25.2	14.4		950	505.3
			98.0	4926.3	1774.4	1563.2	
			98.0	1563.2			
			4830.3	211.2		S	4930.3 211.2

Course	Dist.	N.	S.	E.	W.	S	E	W
		brt frd	7003.3	7785.8		53.1		27.5
S 33° 30' W	244.		204.0		133.7			
S 41° 30' W	206.		154.3		136.3			
S 37° 30' W	342.		271.2		208.0			
S 18° 30' W	140.		132.7		44.3			
S 27° 45' W	380.		356.3		176.9	1151.6		226.7
						170.2	158.6	83.3
S 16° 30' W	69.		66.1		19.6	993.	S.F. 62	645.4
S 26° 30' W	271.		242.6		120.8			
S 22° E	237.		219.7	88.6				
S 33° E	189.		158.3	102.8				
S 26° 25' E	86.		76.9	38.2				
S 20° 15' E	79.		74.1	27.3				
N 8° 30' W	58.	2.5			58.0	993.8		24.8
			8939.5	8042.7	897.6	8937.0	7145.3	S.E. 61
			2.5	897.6				
			8937.0	7145.1				
S 42° E	276.		205.0	184.6				
S 86° 30' E	310.		18.9	309.3				
S 53° E	350.		210.7	274.3				
S 82° 30' E	325.		42.2	321.7				
S 68° 30' E	215.		80.4	199.3				
S 37° 45' E	239.		189.8	146.2				
S 77° 30' E	250.		54.0	244.0				
S 36° 40' E	302.		235.5	188.7		S. 1036.5	E. 1868.1	
S 83° E	444.		54.1	440.1		62.2	48.5	38.8
S 23° E	22.		20.2	2.5		688.0	1829.3	S.E. 60
S 22° 45' E	286.		265.6	110.4				
S 88° E	127.		3.4	126.9				
S 86° E	370.		25.7	368.8				
S 52° 30' E	394.		239.5	312.5				
S 3° W	161.		160.6		8.3			
S 45° 30' E	375.		262.5	266.2				
						1078.1	1657.9	
S 21° 45' E	530.		492.2	196.1		128.7	20.1	91.6
S 22° 45' E	329.		303.3	127.3		988.	1566.3	
S 46° 40' E	130.		89.1	94.5				
S 13° W	168.		163.6		37.8	275.7	502.4	
S 35° 45' E	770.		624.8	449.7		12.6	12.3	2.8
S 16° 45' E	191.		181.8	54.7		988.	506.6	
S 8° 15' W	221.		218.5	330.8	31.6	31.6	257.6	469.4
S 16° W	523.		502.6		143.8		30.4	8.6
S 71° 15' E	194.		62.4	133.7		988.	460.8	
S 6° 45' W	268.		268.2		27.6	988.3		61.0
			4940.3	4551.6	249.3	4940.3	4302.2	N.E. 55
				249.3				
				4302.2				
S 13° E	358.		348.7	80.5				
S 55° 45' E	388.		218.4	314.4				
S 39° 30' E	114.		87.9	72.4				
S 36° E	289.		233.8	189.7				
S 21° E	197.		183.7	70.5		688.6	637.0	
S 16° 30' W	532.		510.1		151.0	65.6	61.2	23.5
S 25° 30' W	98.		88.2		42.1	950.	660.5	
S 29° W	224.		195.7		110.8			
S 53° E	58.		33.7	45.7				
			1900.2	753.2	303.9	1900.2	S.W. 54	211.2
				303.9				
				449.3				

17A

PCOSCO. SK.F 41, P. 18

(1)

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Meanders of the Pecos River
 from N. E. corner 69, Block 1, I. & G. N. Ry. Co.
 from survey made Oct. & Dec. 1918
 by R. S. Doi,
 State Surveyor.

Course	Dist.	N.	S.	E.	W.				
N 58° 15' E	305.	159.3		257.5					
N 76° 15' E	186.	44.0		180.6					
S 76° 45' E	180.		357.6	155.7					
S 79° 45' E	245.		43.6	241.1					
N 75° 30' E	578.	164.1		554.3					
N 80° E	213.	36.9		209.8					
S 60° E	91.0		45.5	78.8					
S 59° 35' E	249.		126.0	218.6					
S 33° E	30.		25.1	16.3					
S 13° W	185.		180.2		41.6				
S 1° 45' E	65.		64.9	1.9					
S 41° 45' W	231.		172.3		153.8				
S 25° 45' W	375.		337.5		162.7				
S 64° 15' E	331.		33.2	329.3					
S 57° 45' E	262.		139.6	221.4					
N 74° E	293.	80.5		281.5					
S 76° 45' E	190.		43.5	184.8					
S 54° 45' E	417.		240.6	340.5					
N 79° 45' E	163.	30.0		160.4					
S 63° 30' E	411.		183.3	367.8		43	973.8	3074.4	S. E. 69
S 35° 35' E	188.		152.8	109.4					
S 24° 30' E	481.		437.6	199.2					
S 48° 30' E	107.		70.8	80.1					
S 25° 30' E	179.		42.3	20.2					
S 52° 50' W	179.		108.1		142.6	17.4	975.7	597.8	
S 5° W	149.3		149.3		13.0		17.3	1.4	
East	2.			2.0			993.	598.2	S. E. 68
S 4° E	193.		192.5	13.4					
S 0° 10' E	360.		360.0	1.0					
S 58° 30' E	352.		183.7	300.0					
N 79° 45' E	295.	52.5		290.3			815.7	593.1	
S 30° 15' E	437.		377.3	220.7		205.2	122.3	102.6	
S 68° 10' E	368.		136.9	341.5			993	695.7	S. E. 67
S 25° 10' E	290.		262.4	123.2					
S 85° E	731.		63.6	728.0					
N 51° E	390.	245.5		303.0					
S 85° 30' E	384.		64.0	382.6					
S 75° 15' E	251.		229.9	242.7					
S 38° 30' E	239.		186.9	149.6					
S 86° E	291.		20.2	289.2					
S 66° 45' E	513.		202.6	470.9					
N 61° E	90.	43.6		78.6					
S 86° 15' E	102.		6.6	101.7					
S 56° 15' E	105.		58.4	87.2			242.4	3416.6	
S 47° 30' E	549.		370.9	404.7		77.5	50.6	64.1	
S 36° E	278.		224.9	163.4			993	3470.1	S. E. 545
S 24° 30' E	128.		116.4	53.1					
S 4° 05' W	199.		198.4		14.1				
S 17° 15' E	253.		240.6	74.9			1100.6	627.9	
S 25° 30' E	178.		160.2	76.5		119.7	107.6	33.3	S. E. 65
S 29° E	344.		300.6	166.6			993	594.6	
S 39° 45' W	276.		289.0		340.0				
S 48° 45' W	333.		212.3		250.3				
S 40° 30' W	288.		218.8		186.0	127.	33.7	95.3	
S 29° 45' E	172.		149.3	85.3			993.	118.6	S. E. 64
S 49° 45' W	252.		162.8		192.2				
S 17° 45' W	202.		192.3		61.5				
S 21° 45' W	76.		70.5		28.1				
S 27° 20' W	190.		168.7		87.2		1046.1	565.0	
S									
		656.4	7859.7	9359.1	1573.3	59.8	57.1	27.5	

Pecos Co. SK F. 41, R 17

Determination of excess easting in Block 194

By actual survey of meanders of Pecos		
From orig N.E. 43 Blk 1, west to N.E. 50,	1924.4	
" " N.E. 50 " to orig. N.E. 55,	1696.6	
" " N.E. 50 " " " N.E. 60,	4302.2	
	<u>7923.2</u>	
" " N.E. 60, east to N.E. 62,	668.1	
By actual measurement	7255.1	
From N.E. 62 west to N.W. 62	4243.9	
" N.W. 62 " N.E. 34 Blk 194	422.0	
" N.E. 34 Blk 194 to N.W. 33 " "	2023.5	
" N.W. 33 " S.W. 5 " "	11400.0	
	<u>25343.6</u>	25343.6
From orig N.E. 43 Blk 1, west to wbl 42 & 43	3801.0	
" wbl 42, west to ebl 9 & 10 Blk 193	220.0	
" ebl 9 Blk 193 to N.E. 43 Blk A2	1961.5	1181.5
" orig N.E. 43 A2 to orig N.W. 5 C3	5760.0	
" " N.W. 5 C3 to orig N.W. 3 C4 call	13300.0	
	<u>25042.5</u>	25042.5
Excess in 7 miles	301.	
" 1 "	43.0 varas	

Determination of width of unsurveyed State Land lying between west line of sur 61 Blk. 1, and east line sur 33 Blk 194.

From meanders above,		
from N.E. 43 Blk 1, to N.E. 62, west	7255.	
" N.E. 62 " to N.W. 62, "	4243.	
" N.W. 62 " to N.E. 33 Blk 194	164.	
" N.E. 33 " 194 to N.W. 33 " "	<u>2023.5</u>	
	13685.5	13685.5
From N.E. 43 Blk 1 to wbl 42	3801.	
" wbl 42 to ebl 9 blk 193	220.	
" ebl 9 to N.E. 43 A2	1961.5	
" N.E. 43 A2 to N.W. 5 C3	5760.	
" N.W. 5 C3 to wbl 8 C3	1943.	
	<u>13685.5</u>	13685.5
From wbl 62 Blk 1, to N.E. 33 Blk 194	164.	
" N.E. 33 Blk 194 to 2nd N.E. 33 "	500.	
" S.W. 62 to N.W. 61 Blk 1,	<u>356.</u>	
Width of unsurveyed tract on north,	308. varas.	

Note, The S.W. cor sur 5 Blk 194 was located due north of original N.W. 3 C4. The distance east, 6 miles to N.E. 28 and on to N.E. 34 was actually measured and marked on the ground. The true location of N.E. 28, under my instructions is due north of S.W. 8 C3. Therefore we located the original N.E. 43 A2, and N.W. 5, N.E. 8, on the ground, found the average excess from that point to N.W. 3 C4 to be 43 varas, and placed N.W. 33 258 varas east of actual distance from S.W. 5, or due north of S.W. 8 C3.

(Boundaries of unsurveyed tract follow)

- 14
- N.W. cor sur 51, a rock mound on a mesa from which
Bluff bears N 27° 47' E,
Cap rock bears N 19° 30' W,
S.W. cor sur 51, a rock mound on a narrow backbone, on large flat rock, from
which foot of bluff bears S 58° E,
Column of square boulders bears S 62° 30' W
"S W 51" marked on flat rock bears N 70° E 2 varas,
- N.W. cor sur 43, a rock mound at foot of hill, from which
Cap rock bears S 54° 45' E
Cap rock bears S 4° W
Rock mound bears N 5° W 37 varas,
S.W. cor sur 42, a rock mound in a flat, from which
Gable bluff bears N 75° E,
Projecting perpendicular red bluff bears N 57° 15' E,
Sharp rock capped peak bears N 28° W,
South end of cap rock bears East,
N.W. cor sur 41, a rock mound in a flat marked "N 2 41",
S.W. cor sur 41, a rock mound on rock ledge, on south side of canyon, from
which middle one of three pointed hills bears N 3° 15' E,
cap rock bears S 78° 35' W,
N.W. cor sur 39, a rock mound on east side of canyon marked "N W 39",
- N.W. cor sur 38, a rock mound on west edge of canyon floor which
Pointed hill bears S 20° 50' E,
Point of ledge on nose of hill bears S 80° 15' W,
S.W. cor sur 38, a rock mound on a ledge, flat boulder near corner marked
"SW 38" from which
Cap rock bears N 20° 50' E,
Pointed hill bears S 33° 25' E,
N.W. cor sur 37, an iron pipe and rock mound from which
cap rock bears N 10° 15' E
Gap in pointed hill bears N 74° 15' W,
Pinnacle of boulders on dyke bears S 12° 45' W
S.W. cor sur 37, Rock mound marked "S W 37" on south side of road, from which
Square top pinnacle bears S 25° 47' W
Gap in pointed peak bears N 30° 30' W,
East edge of cap rock bears S 24° 25' E,
N.E. cor sur 36, a rock set in the ground marked "N E 36" from which
Projecting lower cap on nose of hill bears S 0° 05' E,
Projecting ear bears S 70° 35' W,
S.W. cor sur 36, a stake in a field from which a post marked X bears
N 0° 53' E 42.5 varas,

New corners marked in Block 103 Tex. & Mex. R., Y. Co.

- S.E. cor sur 5, a rock mound from which
Pile of square boulders bears N 60° 30' W
Gap in rock hill bears N 30° W,
N.E. cor sur 3, a rock mound on south line sur 5 from which
Pinnacle of square boulders bears N 46° 30' W,
Crack between boulders on rim rock bears S 19° 20' W,
S.W. cor sur 5 and N.W. cor sur 3, a rock mound on ridge at head of draw from
which a bluff bears N 46° 30' E
another bluff bears S 73° 45' E,
N.E. cor sur 4, a stake and rock mound marked N.E. 4, set 85 varas east of
lower N.W. cor sur 5,
Lower N.W. cor sur 5, a rock mound from which
Pinnacle of square boulders bears S 51° 40' E
Bluff bears S 20° 25' W,
N.W. cor sur 5, a rock mound on east slope of ridge, from which
Pinnacle of square boulders bears S 45° 15' E
Bluff bears S 9° W
Oil derrick bears S 4° W,
N.E. cor sur 5, a rock mound in flat from which Rim rock bears S 78° W
Pinnacle of square boulders bears S 12° 45' E,

See also Report received March 2nd 1881

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Pecos Co. Sk. F. 4, P. 15

- 13
- S.W. corner sur 64, a rock mound on east side of a rocky hill, from which
 Cap rock bears N 8° 35' E
 Windmill bears N 66° E
- N.W. cor sur 63, a rock mound on a ridge, on a flat rock, from which
 X on a ledge of rock bears S 40° 16' W 82 varas,
- N.W. sur 62, a rock mound on a ridge on east side of draw, from which
 one rock marked "N W 62",
- S.W. corner sur 68, a rock mound on a ridge, from which
 West side of a gap bears S 30° 30' W
 Square boulder on rocky point bears N 75° 57' W
- N.W. corner sur 61, a rock mound on east bank of draw in canyon, from which
 West edge cap bears N 12° 50' W
 West edge small capped hill bears N 10° 45' E,
- S.W. corner sur 61, a rock mound on east slope of high ridge about half way
 down, marked "S W 61", from which another rock mound
 bears east 184 varas, from which latter rock mound
 East edge of a cap rock bears N 19° 25' E,
 Boulder on a point bears S 38° 30' E,
- N.W. corner survey 60, a rock mound on east slope of west prong of Smith
 canyon, from which X on boulder bears N 50° 30' E 59 varas,
- S.W. cor sur 60, a rock mound on foot of ridge on north side of valley,
 from which white spot on cap rock bears S 83° 50' W,
 Projecting cap rock bears S 18° W,
- N.W. cor sur 59, a rock mound in a flat, from which
 Windmill at house bears N 48° 23' E,
 Cap rock bears S 70° 35' E
- S.W. cor sur 59, a rock mound on north side of a Mt. near top, from which
 Windmill at house bears N 25° 45' W
 Cap rock bears N 67° 20' E,
- N.W. cor sur 58, a rock mound in canyon on nose between two draws, from which
 Windmill at house bears N 2° 45' E, M
 Monument on Mt. bears N 19° W,
- S.W. cor sur 58, a
 Cap bears N 44° 30' W,
 a rock mound on terrace at foot of hill, from which
 Windmill bears S 63° 10' W,
 Hole in rock at foot of bluff bears N 88° 45' W
- N.W. cor sur 544, a rock mound in valley from which
 Windmill bears S 85° 35' W
 South edge of bluff bears S 12° 45' W about 400 varas,
 a rock mound bears S 9° 30' E 54 varas,
- S.W. cor sur 544, a rock mound in a flat, from which
 Small cave in ledge half way up Mt. bears South,
 Projecting cap rock bears N 89° W,
 Rock mound marked "SW 544" bears S 30° 50' E 28 varas,
- N.W. cor sur 543, a large rock marked "SW 543" set in the ground with
 smaller rocks around it,
- S.W. cor sur 543, a rock mound on north slope of ridge, from which
 Cap rock bears N 35° 10' W
 Cap rock seen over hill bears N 5° 30' W,
- N.W. cor sur 53, a rock mound near edge of bluff, from which
 North edge of cap near white spot bears N 50° E,
 Point of brown spot on ledge below highest point of nose
 bears S 3° E,
- S.W. cor sur 55, a rock mound on top of hill, from which
 "S W 55" marked on flat rock bears East 1 vara,
 East edge bluff bears S 23° 7' about 200 varas,
 White spot on rim rock bears N 43° 10' E
 Sharp topped hill bears N 26° W,
- N.W. cor sur 54, a rock mound on top of ridge from which
 Foot of rim rock bears S 50° 30' E
 Cap rock north of white spot bears N 37° E
- S.W. cor sur 53, a rock mound on north slope of ridge, from which
 Bluff bears N 10° 45' E about 500 varas,
 East edge cap bears N 11° 50' W,
- N.W. cor sur 52, a rock mound marked "N. 52" from which
 square boulder on point bears S 70° 50' E
 white spot on bluff bears N 32° 05' E
 Rock mound bears S 63° 30' E 66 varas,
- S.W. cor sur 52, a rock mound from which sharp peak bears S 4° 30' E,
 Top point of bluff bears S 55° 15' E,
 Rock mound bears S 64° 30' E 72 varas.

13A

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New Corners marked in Block 1 I. & G.N. RY. Co.

- N.W. cor sur 72, a stake on the bank of the Pecos river from which
a white spot on a bluff bears N 5° 15' E
West edge cap rock bears N 5° 05' W,
North edge of cap rock bears S 58° 16' W,
Crack in bluff above NE CO bears S 45° 20' E
- S.W. cor 72, Stake and rock mound from which
White spot on bluff bears N 3° 06' E
North edge cap S 84° 25' E
- S.W. cor sur 71 Stake and rock mound from which
South edge cap bears N 88° 05' W
West edge cap bears N 20° 28' E
- N.W. cor sur 70, Rock mound from which
Pointed peak bears N 34° 20' E
North edge cap rock bears S 72° 18' E
- S.W. corner sur 70, Stake and rock mound from which
North edge cap of flat topped Mt. bears N 71° W
Middle of pointed peak bears N 20° 35' E
White spot on bluff bears N 1° 20' E
- N.E. corner sur 69, Rock mound on west bank of the Pecos River from which
Boulder at foot of cap rock bears N 65° E
East edge cap rock bears S 47° 15' E
West edge cap on pointed hill bears N 10° 05' W
Rock mound marked N.W. 64 bears S 1° 35' E 411 varas,
- N.W. cor survey 69 a stake and rock mound from which
West edge cap of pointed Mt. bears N 3° 15' W
South edge cap of flat top Mt. bears N 81° W
Windmill bears N 73° 35' W,
- S.W. corner 69, a rock mound from which
Middle of sharp topped hill bears N 1° 50' W
Cap rock N 80° E,
- N.W. corner survey 68 a rock mound from which
South edge flat top Mt. bears N 80° 40' W
East edge Cap bears S 0° 50' W
Cap rock bears N 07° 45' E,
- S.W. corner sur 68 a rock mound from which
Cap bears N 1° E
North edge flat top Mt. bears N 74° 35' W
- N.W. corner sur 67, a rock mound from which
North cap of pointed peak bears N 63° 30' W
East edge cap rock bears S 3° W
- S.W. corner sur 67, a rock mound, one rock marked "SW 67",
- N.W. corner sur 545, a rock mound at west foot of hill, from which
West end cap rock bears N 1° E,
Sharp topped hill bears S 71° 45' W
- S.W. corner sur 545, a rock mound on south side of road, from which
North edge table top Mt. N 60° 50' W
Cap rock on east edge of gap bears S 0° 50' E,
Windmill bears S 70° 45' E,
- N.W. corner sur 65, a rock mound on foot of slope from which
East edge cap bears S 13° 45' W
Cap bears S 80° 05' W
Windmill bears S 77° 24' W
- S.W. corner sur 65, a rock mound from which
East point of caprock seen through gap bears N 23° E
North edge cap bears S 80° 55' W,
White spot on ledge bears N 70° 05' E
Rock mound marked "N.W. 64" bears S 42° 30' E 208 varas,
- N.W. corner survey 64, a stake in a flat from which
West point cap rock bears S 49° 30' E
Windmill bears N 80° 30' E

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Report on resurvey of Blk 1,ecos River

School land.

Our measurement showed 52.15 varas excess in northing per mile, or 3.06 varas per 100. This was distributed along the line of Blk 193, and thrown into surveys 10, 8, 6, & 4, and surveys 9, 7, retaining their original calls, but when we came to survey 5 we had to include this excess in northing in survey 5 or tear it from its connection and relative position to 4 and 6. Also the excess being put into 4 and 2, we had to put it into 3 and 1 as well.

The details of this change in northing are given on the plat.

This survey and calculation showed that the east part of the north line of Survey 5 was 390.7 south of the south line of survey 37 as described above.

And that the N.E. corner of survey 5 was 715 varas west of the west line of Survey 37.

We put in the corners of sur 5 from these calls, corners and bearings are given in the attached field notes.

Survey 1 1/2 calls for both the middle east cor of sur 5 and for the N.W. corner of survey 36, but as my instructions were to disregard calls for the river block in construction of surveys tied to Blocks and corners on the west, we started survey 1 1/2 from the middle cor of sur 5. Sur 1 1/2 calls to run north 400 varas which will reach a point 9.3 varas north of the South line of survey 37, as 37 is the senior survey it will hold over sur 1 1/2, but west of survey 37, between its west line and the upper east line of sur 5 it can take its full distance of 400 varas and was so put in.

The location of the town of Sheffield has already been reported on, and in connection with this report all data necessary to determine its location have been reported.

The lines run and connections made with sur 5, sur 1 1/2 sur 36, and the river at S.E. 36, show that survey 2 1/2 begins at the S.E. cor sur 5 and will run north as called for, 400 varas. The call is thence east 694 varas which would bring the N.E. cor of 2 1/2, 19.8 varas south and 21 varas east of the stake we set for the S.W. cor sur 36.

But Mr. Williams call for the north line of his sur 35 1/2, 4548.4 varas, will pass the S.W. cor 36 by 288.4 varas and conflict to that extent with the east part of sur 2 1/2.

This position of sur 1 1/2, 2 1/2, sur 5, sur 37, & 36, and 35 1/2 will leave an unsurveyed space between 36 and 5, This space Mr. Jessup applied to purchase and at his request I made field notes covering this tract, and forwarded a copy to your Office.

I believe the above covers all the facts in the determination of location of Blocks and surveys in question.

Certain matters had to be determined in the field, such as the better method of correcting the error in easting in west lines of surveys 46 & 47 Blk 1 and the insertion of the 70 varas excess in sur 47, and the acceptance of the rock mound at S.E. 38 as the holding corner, and consequent shortening of the width of sur 536 1/2, but as all matters are referred to your Office for approval or correction it was thought better to settle these matters temporarily in the field so that the survey could be completed on the ground and all data reported at once in this report,

Which is herewith respectfully submitted

R. D. Dod

State Surveyor

Alpine, Texas February 9 th 1919.

PELOS Co. Sk. F. 4. P. 12

(8)
Report on Resurvey of Blk 1 Pecos river.

the field note calls, while on the west we had an excess of 79 varas in the 6 miles. This might be a difference in variation used, only that our variation was first taken from the bearings of N.W. 3 Blk C 4, and tested on corners in Blk 1, and on bearings at S.W. 6 Blk C3,

The meridian through Blocks 178 and 194 would under my instructions, run from the N.W. cor sur 7 C3 to the west line sur 33 Blk 194.

This will place the N.E. cor sur 34, 238 varas east of its location from the west and 164 varas west and 11 varas north of our N.W. cor sur 62 Blk 1.

The calculation on which this is based is attached to this report. This shows that the east line of sur 34 will reach the north line of sur 61 at 1004 varas south from N.E. cor 4, at a point 192 varas east of S.W. 61.

This shows a tract of unsurveyed land lying between surveys No 3, 101, 102, 103, 104, on the north, surveys 34, 35, 36, 37, on the south, and surveys 61, 62, 63, & 64 on the east.

I attach field notes showing exact location and acreage of this tract. Mr. Ira G. Yates has made application for survey and purchase of this tract and as a matter of convenience I have made the field notes to cover this application.

Unsurveyed land between Block 1 and Blocks 194 and 178 and 193.

The above calculation of the position of N.E. cor sur 34 relative to the west line of Blk 1 I. & G. N. Ry. Co, based on the actual measurements above note show that the lower N.E. cor sur 33 Blk 194 is 308 varas west and 250 varas north of the S.W. cor of sur 61 Block 1. From this S.W. cor sur 61, the west line of Blk 1 has been described as run out subject to approval of your Office. The east line of Blk 194 will run course and distance as called for in its field notes, as shown on Plat, until it reaches the S.E. cor sur 31, here we find that the S.E. cor of sur 31 is placed 2866.5 varas east of the east line of survey 21, which under my instructions to project meridians from corners in C3, will be 1943 varas wide hence the call on east line of 31, "east 897", must be increased 43 varas to 1040 varas.

Again the distance from S.E. 36 to N.E. 35 Blk 178 is given in the field note of Blk 178 as 488 varas but when we insert the 20 varas per mile excess in surveys 34 & 35, found between N.W. 6 and N.E. 3 Blk C3, this distance becomes 528, and to preserve the relative distance of east line of sur 2 Blk 178 and east line of sur 35 same block we must increase the call east 216 on east line sur 1, to 256.

At S.E. 3 block 178, original field notes show south line of 3 as 1888.5 varas which would be 11.5 varas west of N.E. cor sur 2 Blk C3, but survey 2 Blk C3 is 1920 varas wide making it 31.5 from S.E. 3 to N.E. 2 Blk C3.

When we reach the north line of survey 39 Blk 1, we find 393 varas westing from S.W. 41 to N.W. 39, and only 220 varas to the east line of survey 9 Blk 193 consequently there is a slight conflict here and no vacancy, but the vacancy opens out again on the east line of sur 8 where this east line recedes westward. When we reach the north line of sur 1 1/2 we find it extending 9.3 varas north of S.W. cor sur 37.

The details of the east and west lines of these tracts are attached to this report.

I was instructed to resurvey part of this tract as surveyed for Mr. Nolke by the County surveyor of Pecos Co. and I attach field notes covering this part of the unsurveyed land up to the south line of survey 44 Blk 1, where the field notes of Mr. Nolke's survey stopped according to the plat furnished me from your Office.

Mr. Holmes applied for 1280 acres of this strip to the Co. Sur. of Pecos County and I have made out field notes covering this 1280 which he wishes to buy.

Mr. Yates has applied to purchase 1280 acres out of the north part of this strip and I made him field notes to cover this part of the survey.

Of course these field notes of Mr. Holmes and Mr. Yates conflict, but as I had no authority whatever in the matter of determining the rights of the parties under their applications, I made the field notes so that there would be some definite basis for settlement or discussion.

Location of surveys in Block 193 Tex. & Mex. Ry. Co.

The field notes of Block 193 show that its south line is an extension west from the S.E. cor sur 32 Blk 1, and its north line is 100 varas north of the north line of sur 1 Blk C3, the S.E. cor of sur 1 Blk C3 being also the N.E. cor sur 43 Blk A2, above described. On connecting N.E. 43 A2 with the Lancaster corner it appeared that there was considerable excess in northing between these points, and I was instructed to distribute this excess pro rata among surveys in Blk 193, but to throw this excess into the adjacent

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The above facts show the relative position on the ground of survey No 3, by following the calls of the original field notes, and I have made out field notes for corrected survey of No 3 on these data, showing a shortage of 167.2 acres, or content of 4260.8 acres instead 4428 acres.

But in as much as the evident intention of the original survey of No 3 was to take all the land immediately west of Blk 1, and as the original surveyor made no corners on the ground, it is possible that you may think it proper to extend the calls east for Sur No 3, to include the three ten vara strips of unoccupied land between west lines of 68, 67, 545, and east line 3.

OK
No 3

Consequently I have made a set of corrected field notes based on this extension as carrying out the intention of the original surveyor and attach them to this report, showing 4270 acres in No 3, under this construction.

Location of north line of Block 194 G.C. & S.F. Ry. Co.

The north line of this Block was located from its calls on the west, under my instructions from your Office, and was reported as part of the preliminary survey.

We started at the original N.W. cor sur 3 in Blk C4, a rock mound with 3 mountain bearings. It is also the S.W. cor sur 25 Blk 178, and S.E. cor sur 2 Blk Z. It is described as on a hill with a stone capped mountain in the valley N 25° W, another S 50° E, another South 150° varas. We found the mound on the hill and the bearing on the hill in the valley is unmistakable, and the bearing S 50° E also fits.

We ran north from this point 8 miles and connected with a line we ran east from original N.E. 33 blk Z, the intersection of these lines gave an excess in northing of 106 varas in the 8 miles. Applying this pro rata to the surveys in Block 178 and 194, we located S.W. cor sur 5 Blk 194, at 11479 varas north of N.W. survey 3, Blk C4, as above described.

From this point we ran east and north as before reported, along the north line of Block 194, by placing the north corners of surveys 37, 36, 35, & 34, by the distances called for in their field notes east from the east line of Blk Z. On reporting that there was a line of original corners running east and south from N.W. 3 C4, through Blk C3 to N.E. cor sur 43 block A2, I was instructed to make the width of surveys in Blk 178 and Blk 194, east and west, accommodate itself to the calls for these C 3 surveys on south line of Blk 178.

On connecting our S.W. cor survey 65 with the south line of Runnels Co. No 3, as above related, we found that the N.E. cor of sur 104 T.C. Ry. Co. under the field notes of 101, 102, 103, 104, would be 7600 varas east of the S.W. cor No 3, where sur 101 called to begin, and as no marked corners are called for course and distance from this point would govern. We ran as above related 355 east from S.W. 65 for N.W. 64, then south 993 for S.W. 64, then west 511 for N.W. 63, and ran on west 583 varas and south 163 varas and put in the S.E. cor sur 104, 7600 varas east and 1209 varas south of the above described S.W. cor sur No 3, and 819 varas north of the north line of 34 Blk 194, located from the west as above noted. From the N.W. cor sur 62 we ran across to the N.E. cor sur 34, Blk 194 and found it 11 varas north and 422 varas west.

X

In order to apply the excess easting to this N.E. cor sur 34, we went to the S.W. cor sur 48 Blk 1, as before described, and ran 430 varas north and 2181.5 varas west to a small rock mound in 4 mile draw, shown me as original N.E. sur 43 Blk A2. From this cor of sur 43 two bearings are given, one on the red gable bluff on the river used as a bearing for N.E. 43 Blk 1, which call fits from this rock mound, but the other call is for a round hill N 50° 60' W, and the only round hill near this course reads N 55° 30' W, I note that Mr. Williams in his report of survey made in '92 calls for this round hill as N 54° 30' W.

W.F.S.
R.V.

I was told that there was another rock mound west which would fit both bearings and ran on west until I reached a point S 50° E from round hill, but at this point I could not see the gable bluff on the river, and moved back to a point where I could get the course from the gable bluff and approximate the call for the round hill, but found no rock mound, neither could the men who had formerly seen this mound, find it. The road had been worked and raised on a dump near this point and it was suggested that the rock mound had been destroyed by the road work. In order to settle the matter definitely, I went to the S.W. cor sur 6 Blk C 3, a small mound in a flat with a well marked peak or bluff standing as called for in the field notes of this survey and ran a traverse back to the N.E. sur 43 Blk A 2, and found it 3 miles and 50 varas east and one mile and 23 varas south of this S.W. 6 Blk C3.

This connection with N.E. cor sur 43 Blk A2 and S.W. 48 Blk 1, showed an excess in easting from N.W. 3 C4, to S.W. 6 C3, of 43 varas to the mile for the 7 miles, and also showed an error in northing in this chain of old corners, as the distance north to north line of sur 34 Blk 194 was only barely enough to

X

9A

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Report on Resurvey Blk 1, Pecos river.

corner. The map and field notes show this corner to be located on a peculiar sharp bend of the river, and call for a rock mound with two cedar bearings.

We found the river at this point encroaching on an old road way beside a rocky ridge. At the foot of the ridge was a scattered pile of rocks, from which the stump of what had been the larger cedar in sight bore as called for in the field notes, and another smaller cedar, still standing, fitted the call for the other tree. Mr. Williams states that he identified this corner in 1922 and notes a clump of Hackberries which we found bearing as called for from the above described mound.

From this mound we ran a traverse back to the large IR rock above described as 84 varas south of the south line of sur 36, finding it to be 4250 varas north and 2960 varas west of the above described S.E. cor sur 32.

This shows a space of 554 varas in width between our south line of 36 and the north line of 35 by course and distance from S.E. 32. But we find that Mr. Williams has inserted a survey No 35 1/2 J. Swisher, between sur 35 and 36, to which he has given a width of 328 varas and a length of 4600 on the north line, out from the river, which makes a conflict between this sur 35 1/2 and sur 35, and on the west between sur 35 1/2 and survey 2 Blk 193 and sur 2 1/2 as shown later on.

In looking over the field notes of Blk 193 which was put in by Mr. Durrell in 1882, we find that the westing of 29.5 varas on east line of sur 6, and the easting of 388 and 1790 on east line of survey 5, correspond with the distances given on west line of 535, 37, and 36, and Mr. Durrell's call for sur 5 to begin on Blk 1, also shows that these were probably the original calls on west line Blk 1, before Mr. Nelson made his corrected survey of 37. I note this as we did not have the original calls of survey 37.

This completes the meander of the river along Blk 1, I. & G.N. Ry. Co. from sur 69 to sur 37, with corners set on the west lines from sur 69 to sur 50, and from sur 50 to sur 36, as above related.

No 2. (See indications Letter Book 1232/476)

Runnels County School Land No. 3

This survey under its original field made in 1891 by L.W. Durrell, calls to begin at the S.W. cor sur 70 Blk. 1, I. & G.N. Ry. Co. and by these field notes would contain 4428 acres or one league of land, but these calls do not fit the actual location of the west line of surveys in Block 1 and there is a consequent shortage in No 3, the junior survey.

Having established the S.W. cor of sur 70 Blk 1, as above related, we ran south 4912 varas and made the S.W. cor of sur 3 by course and distance from S.W. sur 70. We found a rock mound marked for the S.W. cor sur 3 at 340 varas east and 539 varas south of our corner, said to have been placed by Mr. Lea.

And at 2028 varas south and 1048 varas east we reached the N.W. corner of sur 36 Block 194 as run by course and distance from corners on the west, as reported in our preliminary survey. This corner should be 338 varas further east to fit the excess in Blk 194 as related below.

Returning to the S.W. cor sur 3 and running east, at 8339 varas we reach the west line of sur 65 Blk 1, at a point 53 varas north of its S.W. corner as located by this survey.

Returning to the S.W. cor sur 70 and following the field notes of No 3, we find it calls to run "east 2494 varas, but the distance between S.W. 70 and N.W. 69 is only 2344 varas, making a conflict of 150 varas in easting.

The next call of No 3 is south 950 varas, but the distance found for sur 69 is 993 varas, so that No 3 will not reach the S.W. cor of 69 by 43 varas, losing to the older sur 69.

The next call is east 1202, while the offset in west line of Blk 1, is 1262. This 1102 together with the 150 easting beyond west line 69, makes 1252 from west line 69, which falls by 10 varas of reaching west line 68.

Next call south is 950, which will not reach north line 67 by 86 varas.

Next call east 856 is the same for No 3 and sur 67, leaving the line of

No 3 still 10 varas west of west line 67,

Next call south 950 for No 3, fails to reach north line 545 by 129 varas.

Next call of No 3 is east 1910, again the same as we found for original

545, which leaves the east line of 3 still ten varas west of west line 545.

Next call of No 3 is south 950, which ~~is~~ fails to reach south line 545

by 172 varas.

Next call of No 3 is east 2177 varas while call for east line 65 is 2166

varas, throwing the east line No 3 and west line 65 together.

Next call of No 3 is south 950, which will be a point on west line 65.

Next call east 208, we can not follow as it is in ruins on the older sur 65.

Next call south 162 we can follow along the west line sur 65 to the

point 53 varas north of S.W. 65 already located by extension of south line No

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(5)
Report on resurvey of Blk. 1 Pecos river.

The high land and ridges on the west of the present river make it physically impossible that its course should at any time have been due south for any distance from the N.E. cor. sur 33.

We continued our meander of the river and searched carefully for the bearing trees called for at S.E. 42, and S.E. 41, but found no trace of them. There were some large willows near S.E. 41, which were buried nearly up to the first branches, showing a fill of some 5' or 6', but no old mesquites near by. We continued our meander line until we reached a rock mound under the fence supposed to be on south line of 38. This rock mound stood on the bank above the river bottom and showed signs of having been in place for a long time. It was not marked on any of the top rocks and I did not disturb it as that would destroy in part the evidence of age. I was told that this corner was found in place many years ago and has been locally recognized as the S.E. cor sur 38. Here we again ran into one of Mr. Williams surveys, and the field notes show the river running S 59° 30' E for 775 varas. This I think is an impossible call allowing for the extreme possible change in the river bed.

We continued our meander line to the N.E. cor sur 37, and S.E. of 535. The original call for S.E. cor 535 is a Hackberry marked X on west bank of River below Pecos Spring. The Pecos spring is a well known spring, the old spring has dried up but its location is unmistakable, and the spring has been opened up and turned into a reservoir immediately below the old opening. A stump of a hackberry was shown us as the original marked tree, and a large hackberry stood close by. Although the bearing had been destroyed yet the statements of several witnesses and the position of the spring identified this as the original N.E. cor 37 and S.E. cor 535. Unfortunately we again were confronted with a corrected survey by Mr. Nelson who made such a serious error in correcting sur 545 as before noted, but as we had no other field notes we had to use his regardless of the fact that they were presumably wrong.

We continued our meander line to the S.E. 37, giving this survey its 950 varas southing. Here we found the river had eroded the west bank for some 50 varas or more of late years, and all trace of the corner noted by Mr. Williams had disappeared.

From this point we left the river and ran a traverse 1034 south and 34 west to a large rock on the south side of a draw and near an old road, which old rock was plainly marked I R on the under side.

We noted a call shown in Mr. Williams plat for an IR rock on the north line of survey 35, and presumably on the south line of 36, 1410 varas east of N.E. 3 with hackberry bearing S 52° 30' W 80 varas. There was no hackberry at this NW course and distance from this IR rock, but there were a number of small hokbr along the draw close by.

From this IR rock we ran east, to 1574 varas passed 8 varas south of an unmarked rock mound on river bank, on 103 varas, 1676 in all to a point on the present river.

From N.E. 43 we had found nothing on the river except the old mound at S.E. 38, and the Pecos spring corner, N.E. 37.

Returning to the N.E. cor sur 43 we ran west, at about 3400 varas we passed 50 varas north of a rock mound said to be Lea's N.W. 43, on at 3700 passed close to a rock mound said to be Williams N.W. 43, on at 3901 made rock mound for N.W. 43, finding a rock mound N 5° W 37 varas, said to be Durrells N.W. 43.

This fixed the N.W. cor sur 43, but in the face of the contradictory calls for the east lines of these surveys, and the absence of any identified points on the river, the only thing we could do was to run the west lines as called for, although this would give us too much vesting to close on the river call.

From N.W. 43 we ran 1908 varas south, east 161, south 958, west 283 to N.W. 39, south 1614, east 695, south 958, east 1520 to a point 244 varas north of N.W. 536, on east 3266, 4795 in all to the rock mound described above as marking the S.E. cor sur 38.

Returning to the 1520 vara point on south line 38 south 244 varas to N.W. 536, on south 672 varas to S.W. 536, west 29.5 varas to N.W. 535, south 672 varas to S.W. 535, east 388 varas to N.W. cor sur 37, thence east 7070 varas to hackberry corner at Pecos Spring, N.E. 37.

Returning to the N.W. cor sur 37 we ran south 950 varas, east 1790 varas to the N.E. cor sur 36, on east 2927, 4717 in all, to point on river for N.E. 36 and S.E. 37 as above noted. The call is for south line of 37 is 4794 varas, and our actual measure to the river is 77 varas short of this, and allowing for the erosion of west bank noted above would probably close fairly well in spite of the increased vesting from error in field notes of 43 & 42, and thus corroborating the position given the west lines of surveys from 43 to 36. Mr. Williams field notes show that he put 4600 varas in the south line of 36, but our measurement leaves only 4260 between S.W. 36 and the river.

In order to complete the connection between the above points on the river, we went to the S.E. cor sur 38 Blk. 1 known locally as the Lancaster

(4)
Report on Resurvey of Blk. 1, Pecos River

We had hoped to find the large rock bearing called for at NE cor 58, but examination on the ground showed that a change of river bed had covered this rock.

At N.E. 50 we found a fence corner, and were told that the corner post had been set where an old rock mound once stood. But our distance ran out some 10 varas south of this point, and within two tenths of a vara of the centre of a small rock mound standing 150 varas west of the present river bank.

This rock mound is at the foot of a ridge or bank and the river bottom extends eastward for 150 varas, the original channel may have been anywhere between this mound and the present river, it is all subject to flood now.

We also ran from the N.W. cor sur 55 as above noted, south 950, east \times 216, south 950, east 65, south 950, east 564, south 950, east 546, south 950 to S.W. corner sur 51, marking each corner as shown below.

We found this corner to be 3851 varas west of rock mound described at N.E. sur 50. The original call is 3886 varas, but the original corner may have been anywhere at or east of the rock mound above described.

From N.E. cor sur 50 the river runs through a comparatively wide valley of made land bordered by gravel ridges of rock ledges and bluffs. The river has cut many channels through this soft bottom land and twists and winds from side to side of the valley, making it impossible to even approximate the location of the original meanders.

On looking over the surveys from 50 to 43, we note that the original field notes stop with survey 49, and that survey 47 & 48 are located by field notes made in 1892 by Mr. Williams. The old calls begin again at survey 542 and continue to the original S.E. cor sur 44.

On running the distance south from N.E. 50 to N.E. 43 we found that there was 79 varas over the even half mile width for each survey, or 128 varas more than called for by Mr. Williams survey.

We could not extend the calling south for the old surveys unless we had an original corner which required this extension, and I understood that Mr. Williams survey was intended to take up the surplus acreage in the old work, consequently it seemed better to give each survey south from N.E. 50 its call of 950 varas, and each survey its original 950 varas north from N.E. 43 and throw the excess into 47, where it would be considered either part of 47 or a tract of unsurveyed surplus land.

Consequently we gave sur 50, 49, 48, 44, 45, 46, each 950 varas southing and threw the surplus into 47 making it 1029 varas wide, subject to further instruction in the premises. We did not put in the west corners of these surveys as this construction might not be adopted, but we used this construction in calculating the bounds and acreage of the unsurveyed land west of them.

The relative position on the river of survey 50 and 44 do not fit the distances given for east and west lines in original field notes as we have not the original calls for the surveys corrected by Mr. Williams.

We gave the west lines of 50, 49, 48, the distances called for, 76 east, 324 west, 77 west. Then starting at the N.W. cor sur 43, set 3801 varas west of the original N.E. cor 43, we ran west 1041 to the S.W. cor 44, north 950 west 1118 to S.W. 45, north 950, east 126 to S.W. 541, north 950, west 349 to S.W. 542, north 950, east 340 to S.W. 47 as run from N.W. 50, as above noted.

But if we take the meanders as given on the working sketch of the field notes from N.E. 50 to S.W. 43 we find an easting of only 1139. Now attempt to close this by running west 3568 to N.W. 50 and along west lines 1204 east and 3801 east to N.E. 43 and we find an excess in westing of 300 varas.

We must cut this down to close and we look for the error in sur 47, and make the westing to N.W. 46 740, which will close with our meanders between N.E. 50 and N.E. 43.

The S.E. cor sur 44, which is also the N.E. cor sur 43 is the best marked corner we found on the river. It calls for a bearing on each of three bluffs and there are no such bluffs elsewhere in sight on the river, and the 3 calls fit the bluffs, each bearing pointing to either a prominent perpendicular face of the bluff, or the middle point fixed by the gable like top. At this corner we found a small rock pile partly covered over, and one of the rocks was marked "XVI" corresponding to Mr. Williams call at this corner. This mound was about 18" from the point at which all three bearings came together with a variation of $10^{\circ}41'E$.

From this corner we meandered the river as before, taking points on the right bank or on bars in the bed of the river. Here we noted a very serious error in the field notes, they show a run of the river straight south, but on the ground the river runs S.E. running east 913 varas in the mile to south line of 42. Again the calls for the three bluffs are repeated at the N.W. cor 43, a palpable error as no such bluffs exist at that point, and the calls for the south line of 42 show that both the river and the west line

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On reaching the N.E. cor sur 545 the question of error in the corrected field notes came up. The field notes in the Patent to this survey follow the corrected field notes made by Mr. Nelson and do not fit the original field notes of the actual meanders of the river. This matter was investigated when the preliminary survey was made and the original meanders of the river were found in the field notes of the survey opposite sur 545, on the east bank of the river. As the object of this survey was to follow the footsteps of the original survey of Block 1, we used the original meanders of the river and original connections with adjacent surveys in the same block. The relative position of survey 545 may be governed by the calls in the patent, but the original field notes must be used to determine the relative position of the adjacent surveys in Blk 1, which run in a continuous chain from one old corner to another.

We were shown a rock mound marked "SW 545" said to have been placed by Mr. Hatchford as Co Sur. and mentioned as a starting point in one of Mr. Lea's reports. This mound is 5819 varas west and 140 south of the point on the river where this survey locates the S.E. cor of sur 545, our S.W. 545 under the original field notes is 1233 varas west and 140 north of this Hatchford S.W. 545. Mr. Hatchford, apparently following the Nelson field notes, places his SW 545 at the distance called for, 4596 varas, for the south line of 545, but apparently the use of these field notes at this point in the chain of surveys brings the S.W. cor of 69, as noted above, almost south of the fairly well identified N.E. cor of the same survey.

Continuing our meander line we found no old marks or corners until we reached the S.E. cor survey 61. Here we found an old I.R. rock set in the ground on the west bank of the river, probably in its original position. This rock was described in report on preliminary survey.

This gives a total southing of 9937 varas and an easting of 7145 varas, between original N.E. sur 69 as above described and this N.E. cor sur 60.

As these surveys all connect, all call for the same width, the excess in southing, under my instructions was pro-rated between them, giving a width of 993 varas to each survey.

The position of the west lines in these original surveys is fixed by the calls for distance from the river corners, but owing to the change in the river since the original survey was made in 1876, the easting of these river corners has presumably changed, at least is uncertain, except at those points identified as original corners, hence at intermediate points a measurement from the river would be uncertain and indefinite. But the length of each line is given and the original difference in easting or westing of these west lines can be exactly determined by comparing the calls in adjacent surveys, giving a continuous line deduced from the original calls for the west lines of these surveys, with a check by measurement to the river at points identified as original corners.

Returning to the N.W. cor of sur 60 as above described we ran south 993, east 1262, south 993, east 656, south 993, east 1910 (orig call) south 993, east 2167, south 993, east 355, south 993 west 511, south 993, west 500, south 993 east 1171, for N.W. cor sur 60, from which point to the IR rock N.E. 60 measured 2760 varas, the original call being 2750.

This closure seems to show that the west lines as above run must be very close to the original position defined by the field notes and that the variation used must be very close to that of the original lines.

From this N.E. cor sur 60 we continued our meander of the river, without finding any original marks until we reached the N.E. cor sur 55. This was a rock mound on the extreme edge of the west bank of the river, marked "NE 55", and one rock marked "10". This corner was reported in earlier preliminary survey and was accepted as probably the original corner. The N.E. cor sur 545 calls for an IR rock which Mr. Williams states that he found, but it has disappeared. I was told by several parties who had lived near these lands that the IR rocks had been purposely torn up and thrown into the river. In many cases the change of channel would account for their disappearance, but it is strange that all but one are not to be found.

From this N.E. corner of 55 west to the N.W. cor 55, the call is 3457 varas the actual distance from this N.E. 55 to our S.W. 55 is 3526 varas. By figuring the easting in the field notes between these fixed points we find that the original meanders give 4221, while our meanders show 4302 varas. An error in the original which accounts for apparent discrepancy in westing of the north line. And gives an average width of 988 varas to each survey.

To find this N.W. 55 we ran from our N.W. cor sur 60, south 988, east 1439, south 988, east 927, south 988, east 445, south 988, east 295, south 988, east 400, marking each of these west corners, field notes attached to this report.

We continued our meander of the river from this N.E. 55 as shown below, to the N.E. cor sur 43, here finding no marks possibly identifying any

Report on Resurvey Blk 1 Pecos River

the back, or west lines of surveys and returning to the river at another original identified corner placed the original corners nearly in the relative position given by the original field notes, whereas any serious error in variation would have thrown the west lines too close to or too far from the river at the fixed points where original corners were identified.

Also a run from the well identified original N.E. cor sur 43 AD, which is also the S.E. cor of sur in C3. to the rock mound and Mt. bearing at S.W. 6 C3 showed that this variation fitted both bearings and course of lines in Blk C 3.

No local attraction was noted, and only a slight diurnal variation, greater or less according to climatic conditions.

The true meridian gave a variation of $11\frac{34}{100}$ ' from the magnetic north. The determination of the course of the original lines was essential as the original corners found were at considerable distance from each other necessitating long lines of connection through the Blocks in question.

Preliminary examination of data,

The survey as shown above naturally, divides itself into 5 distinct surveys, First, the senior Blk 1 senior survey Block 1 made by Mr. Keuchler in 18 and based on the meanders of the Pecos river and certain marked river corners, no corners being called for on the west.

Some of these river corners have trees as bearing, some have mountain bearings and some call for rocks marked IR and set in the ground. The first step in locating the surveys in Block 1 would be to meander the river and look for the original corners.

On seeking a starting point on the river we find the N.E. corner of survey 69 to be the first marked corner with bearings given, below the North corner of survey 72.

The original meanders place this corner at a sharp bend of the river, nearly a right angle from S.E. to N.E. and continuing some 1000 varas east before turning south again, and no similar bend is shown for several sections up and down the river from this corner,

The field notes call for a rock mound on the west bank of the Pecos river, between two riffles with a Hackberry tree west 9 varas,

In the report of Mr. Williams as CO. Sur. Pecos Co. in 1892 he states that he found this corner and the hackberry dead in place, and took a new bearing on a rock bluff S $47\frac{1}{2}$ ° E.

We found a bend in the river closely corresponding to the original field notes, and a rocky hill with bluff caprock S $47\frac{1}{2}$ ° E. At this bend a draw runs in from the west, on the north edge of which are several small hackberrys, 4" to 6" in dia. but none marked.

There is also a draw which runs in to the river at this bend, from the south, with rock ledge showing on river bank, a riffle below the bend and a gravel bar, once a riffle now cut through, above the bend. We were shown a rock mound marked "N.W. 69" about 350 varas south of the south bank of the bend. In a former report we used a point 350 north of this rock mound as the probable location of the original corner N.E. 69, but a closer examination of the present river bank, noting the erosion that had been caused by the two draws, the position of the Hackberry timber, connection with original N.E. 69, and with the river at North cor 72, the meanders of the river to S.E. 69, lead me to believe that the original position of the river and corner were further north, so we placed a rock mound for the N.E. 69, on the west bank of the river, 410 varas N $1^{\circ}30'$ E from the rock mound marked "N.W. 69", and S $47^{\circ}W$ from the east edge of the rocky bluff used as bearing by Mr. Williams, as more nearly satisfying the original description of this corner.

From this point, as a check, we ran course and distance to the N.W. cor sur 69, and made mound, on west 2344 varas for the S. cor sur 70, and N.W. cor Runnells Co. No. 3, North to N. 70° , west to S. 71° , Thence to S. 72° and north to the river. At 1910 varas we dropped some 20' into the river bottom covered with brush and some drift, on at 2204 reaching the south bank of the present river bed. On the north side we noted that the river ran along a low gravel ridge preventing any further movement north, but a former channel might be anywhere in the river bottom.

Returning to our N.E. 69 we reentered the river, taking points on the right bank or in the river bed on gravel bars. The details of this run are given below.

At 921.5 south and 3750 E we found two rocks lying on the bank, one of them marked "1", At 1968.7 south and 3708 east we found a rock mound with rock marked "2".

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Report on a Resurvey of
Block 1 T. & N. Ry. Co. from N. cor sur 72
to N. E. cor sur 32, on the Pecos River
and adjacent Blocks and surveys
in Pecos County, Texas,
by R. S. Dod
State Surveyor.

Object of Resurvey.

- 1 To locate on the ground the actual position and meanders of the Pecos River, and lines of surveys in Block 3, T & G Ry Co.
- 2 To locate on the ground the true position of lines and corners of Rannells Co. No 3.
- 3 To locate on the ground the east line of Block 194, G. O. & C. E. Ry. Co from corners on the west, and determine its relation to the west line of Block 1.
- 4 To locate on the ground the true position the east line and south lines of Block 173 T. & N. Ry. Co.
- 5 To locate on the ground the true position of surveys in Block 193 Tex. & Mex. Ry Co. from connection with original corners called for.
- 6 To locate on the ground the true position from their field notes of survey 1 1/2 in the name of L. Hazeltine, and the town site of the town of Sheffield relative to adjacent survey lines and corners.
To locate and determine area of any tract of unsurveyed State land between or adjacent to the above blocks of surveys.

Authority for the survey.

Letters of instruction from the Commissioner of the General Land Office of Texas authorizing and instructing me to make the resurvey of the above tracts and blocks of land, issued at the request of the owners of certain of these tracts of land.

Data for the survey.

A working sketch of Block 1 T & N Ry Co, Block 194, Block 2, Block 173, Block 193, Block C4 and Rannells Co sur No. 3. from the Gen. Land Office.

Working sketch of Block C3 & C4 and A2 from County Surveyors records in Fort Stockton made by me.

Plat of resurvey of Block 1 and Pecos river and adjacent surveys by O. W. Williams as Co. Surveyor of Pecos Co. in 1892, kindly furnished by the Gen. Land Office.

Plat of lines of connection between original corners in the above named blocks run in a preliminary survey made by me and submitted to the Commissioner of the General Land Office for correction and further instruction under the premises.

Plat of Town Site of Sheffield and field notes of subdivisions of Survey 5 and survey 1 1/2 from deed records of Pecos Co. kindly furnished by Mr. Geo. Hazeltine of Fort Stockton.

Plats of surveys and connecting lines run by A. N. Leagas County Surveyor of Pecos County and filed with the General Land Office, kindly furnished from that Office.

Patents to certain of the surveys in Blk 1 and sur 1 1/2.

Method of survey.

Transit with solar observation checked by observation of north star at elevation, was used to determine courses, checked by reading of the needle at each point of the meanders and frequently on the right lines. Distance was measured by double stadia rod readings, each distance read twice and checked by comparing front and back rod readings.

Variation.

The present magnetic variation and course of old lines was first taken at N. W. cor Blk C4 where we had two mountain bearings, this gave a variation of 10° 41' N. This was checked by run north and east to connect with original corner of 33 Block 2.

Later this variation was proven correct by observation of the three Bluff bearings at N. E. cor 43 Blk 1, also by the fact that in running out from an identified original corner of Blk 1 on the river, then running

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Report on a Resurvey of
Block 1, E. G. N. Ry. Co., from N. cor. sur 72
to N. W. cor. sur 32, on the Pecos River
and adjacent blocks and surveys
in Pecos County, Texas,
by R. S. Ford,
State Surveyor.

Object of Resurvey.

- 1 To locate on the ground the actual position and meanders of the
- 2 Pecos River and lines of surveys in Block 1, E. G. N. Ry. Co.
- 3 To locate on the ground the true position of lines and corners
- 4 of Russell's Co. No. 3.
- 5 To locate on the ground the east line of Block 194, E. G. N. Ry. Co.
- 6 from corners on the west, and determine its relation to the west line
- 7 of Block 1.
- 8 To locate on the ground the true position of the east line and south
- 9 lines of Block 178 T. C. Ry. Co.
- 10 To locate on the ground the true position of surveys in Block 193
- 11 Tex. & Mex. Ry. Co., from connection with original corners called for.
- 12 To locate on the ground the true position from their field notes
- 13 of survey 1 1/2 in the name of J. H. H. Smith, and the town site of the
- 14 town of Sheffield relative to adjacent survey lines and corners.
- 15 To locate and determine area of any tract of unsurveyed State
- 16 land between or adjacent to the above blocks of surveys.

Authority for the survey.

Letters of instruction from the Commissioner of the General Land Office of Texas authorizing and instructing me to make the Resurvey of the above tracts and blocks of land, issued at the request of the owners of certain of these tracts of land.

Data for the survey.

A working sketch of Block 1, E. G. N. Ry. Co., Block 194, Block 7, Block 178, Block 193, Block 04 and Russell's Co. sur. No. 3, from the Gen. Land Office.

Working sketch of Block 03 & 04 and 42 from County Surveyors records in Fort Stockton made by me.

Plat of resurvey of Block 1 and Pecos River and adjacent surveys by G. W. Williams, Co. Surveyor of Pecos Co. in 1892, kindly furnished by the Gen. Land Office.

Plat of lines of connection between original corners in the above named blocks run in a preliminary survey made by me and submitted to the Commissioner of the General Land Office for correction and further instruction under the premises.

Plat of Town Site of Sheffield and field notes of subdivisions of Sur-5 and survey 1 1/2 from deed records of Pecos Co. kindly furnished by W. Geo. Hazeltine of Fort Stockton.

Plats of surveys and connecting lines run W. A. N. Leagas County Surveyor of Pecos County and filed with the General Land Office, kindly furnished from that Office.

Patents to certain of the surveys in Blk 1 and sur 1 1/2.

Method of survey.

Transit with solar observation checked by observation of north star at elongation was used to determine courses, checked by reading of the needle at each point of the meanders and frequently on the right lines. Distance was measured by double Stadia rod readings, each distance read twice and checked by comparing front and back rod readings. Variation.

The present magnetic variation and course of old lines was first taken at N. W. cor. Blk 04 where we had two mountain bearings, this variation of 10° 41' E. This was checked by run north and east to corner with original corner of 33 Block 2.

Later this variation was proven correct by observation of the three BLUFF bearings at N. W. cor. 43 Blk 1, also by the fact that in running out from an identified original corner of Blk 1 on the river, then running

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Report of Resurvey of Blk. 1 Pecos River
"lock 194, 193, 179,

Meanders of the Pecos from N.E. 69 to S.E. 37 Blk 1,

List of new corners and bearings made on this survey.

Method of determining excess in Easting in Blk. 194

Plat and field notes of unsurveyed land between Blk 1 & Blk 194

Field notes resurvey of "C. Nolke application,

" " Holmes application

" " Yates "

Field notes of Resurvey Punnells Co. No 3,

Field notes of unsurveyed strip north of Blk 194, Yates.

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Course	N.	S.	E.	W.
	brt frd	3882.0	1587.6	
S 15° 50' E	315.	303.3	87.0	
S 0° 10' W	74.	74.0		
S 79° 45' W	419.	412.6		70.8
S 26° 15' W	164.	146.9	22.4	789.9 16.0
South	392.	392.0		134.0 23.0
S 3° 15' W	117.	116.7		655.9 39.0 S.E. 36
S 3° W	92.	91.8	6.5	
S 1° W	75.	75.0	4.7	
N 89° W	31.		1.2	
S 86° W	20.	1.5	20.0	957.4 S.E. 38 W 158.8
East	51.		51.0	
S 13° 50' W	250.	242.7	59.7	242.7 8.7
S 16° 30' E	31.	29.8	8.8	244 S.E. 536 1/2
S 14° 30' E	278.	269.2	69.5	
S 10° 10' E	326.	325.7	57.4	619.7 135.7
S 25° 40' W	373.	336.0		54.3 26.0
S 81° E	285.	138.2	249.1	674.0 109.7
S 5° 15' W	280.	278.6	25.6	672. S.E. 356.
(N 44° 30' W 37 to cor.) (26.3)			(25.9)	698.5 82.0
S 59° 30' E	266.	134.8	249.0	26.3 25.9
S 80° 45' E	571.	278.6	497.8	672.0 62.1 Pecos Sp. N.E. 37
N 80° 45' E	175.	28.8	172.6	
S 32° 45' E	200.	168.0	108.0	
N 75° 50' E	423.	103.2	400.9	
N 48° 45' E	168.	110.7	126.3	
S 23° E	410.	377.2	159.9	
S 26° 15' W	231.	207.0	102.0	950. 1647.4
	242.4	8226.6	3933.9	S 7984.2 3378.3 E
		212.4	555.6	S.E. 37
		7984.2	3378.3	
S 26° 15' W	143.	128.3	63.2	
S 23° 15' W	99.	90.8	39.0	
S 16° W	419.	402.6	115.3	
S 16° 45' W	431.	412.4	124.1	
		1034.3	341.6	to IR rock. 1034.1 84.1 950. E 1333. to River S.E. 36
Lancaster Cor. to IR rock	N.	S.	E.	W.
N 89° 15' W	230.	2.0		230.0
N 36° 15' W	160.	128.9		94.5
N 37° 30' W	610.	483.7		370.8
N 37° 10' W	3530.	2814.4		2132.1
N 18° W	620.	589.6		191.6
N 14° 15' E	240.	232.5	59.0	
	4250.1			3019.0
				59.0
				2960.0

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