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July 17 , 1944

Honorable Bascom Giles
Commissioner of the General Land Office
Austin, Texas.

Dear Mr. Giles:

A resurvey has been made at the request of the landowner of the following described property located in Pecos County, Texas:

Section No. 204,	Certificate No. 1/631,	T & P Ry. Co. Block No. 3
" No. 2,	Certificate No. 1135 ,	Public School Land, Block 167
" No. 3,	Certificate No. 1126 ,	P.S.L., Block 167
" No. 4,	Certificate No. 1460 ,	P.S.L., Block 167
" No. 5,	Certificate No. 1640 ,	P.S.L., Block 167
" No. 8,	Certificate No. 3335 ,	G.C. & S.F. Ry. Co., Block 121
" No. 9,	Certificate No. 3336 ,	G.C. & S.F. Ry. Co., Block 121
" No. 10,	Certificate No. 3336 ,	" " " "
" No. 11,	Certificate No. 3337 ,	" " " "
" No. 12,	Certificate No. 3337 ,	" " " "
" No. 13,	Certificate No. 3338 ,	" " " "
" No. 14,	Certificate No. 3338 ,	" " " "
" No. 15,	Certificate No. 3339 ,	" " " "
" No. 17,	Certificate No. 3340 ,	" " " "
" No. 18,	Certificate No. 3340 ,	" " " "
" No. 19,	Certificate No. 3341 ,	" " " "
" No. 20,	Certificate No. 3341 ,	" " " "
" No. 21,	Certificate No. 3342 ,	" " " "
" No. 22,	Certificate No. 3342 ,	" " " "
" No. 23,	Certificate No. 3343 ,	" " " "
" No. 24,	Certificate No. 3343 ,	" " " "

This survey was made for one John S. Oates of Fort Stockton, Texas, and was made for the purpose of ascertaining the existence of P.S.L. Block 167, and the location on the ground of said Block 167, together with G.C. & S.F. Ry. Co. Block 121, T. & P. Ry. Co. Block 3, and G.C. & S.F. Ry. Co. Blocks A, B, C, & D.

The following report and accompanying map, together with corrected field notes, sets forth the facts as disclosed by such survey:

1.
Data for Survey

Working sketch compiled from certified copies of both original and corrected field notes for Sections in G.C. & S.F. Block 121, original field notes for Sections in P.S.L., Block 167, original field notes for the North tier of Sections in G.C. & S.F. Ry. Co's. Blocks A, B, C, & D, and original and corrected field notes for sections in T. & P. Ry. Company Block 3.

Certified copy of Murray Harris' map of T. & P. Block 3, and others.

Photostatic copy of Murray Harris field book for lines between Blocks 48 & 49, 49 & 50, Townships 8, 9 & 10, and line between Blocks 50 & 51, Townships 7, 8, 9 & 10, connecting line between the South corner of the A. Ball Survey No. 256 in Reeves County, and the Northwest corner of Section 14, Block 51, Township 10, and lines of T. & P. Ry. Co. Block 3.

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Certified copies of sketches, maps, connecting surveys and reports relative to the above mentioned blocks.

11.
Method of Survey

All angles measured with Gurley Light Mountain Transit with vernier graduated to 1 minute; all angles measured were doubled for check. All tangents were produced by double centering and distances measured along well "brushed out" lines with an unbroken standard Chicago 50 vara steel tape.

111.
Bearings

All bearings shown on accompanying map are relative to the true meridian through U.S.C.&G. Station Chancellor. No correction of bearings was made for the convergence of meridians at points East or West of this position. The area being treated as if it were a plane surface.

To determine the correct magnetic declination of this locality and date, I occupied U.S.C.&G. Station Chancellor and observed several readings of the magnetic needle and find the average mean declination in this locality, July 1944, to be $11^{\circ} 55'$ East.

Murray Harris used a mean declination of $11^{\circ} 05'$ East on his survey of the T. & P. R.R. Company Block 3, but I find at this time, July, 1944, that a declination of $11^{\circ} 55'$ East will check Harris' calls to reference points.

H. C. Barton used a declination of 11° E. in his survey of the G.C. & S.F. Blocks A, B, C, & D in 1880. I find that a declination of $11^{\circ} 18'$ E. is necessary at this time, July, 1944, to follow the pattern as set by Mr. Barton. In a report by R. S. Dod of a resurvey of these blocks in 1913 he says he used a declination of $10^{\circ} 40'$ E. in order to follow Barton's pattern. Upon checking with the U.S. Coast and Geodetic publication, Serial #592, for 1935, I find that the declination for this area changed at the rate of 1 minute per year from 1913 to 1930, after which the annual rate of change was 2 minutes. Using an annual increase of declination of 1 minute for 17 years and 2 minutes annual increase for 13 years gives a total increase of 43 minutes in declination since the year 1913. Adding this 43 minute increase to the $10^{\circ} 40'$ East declination used by Dod in 1913, we get a declination in 1944 of $11^{\circ} 23'$ E. which checks the declination as I determined it within 5 minutes.

L. W. Durrell used a declination of $11^{\circ} 30' E.$ in 1881 and 1882 in his surveys of G.C. & S.F. Block 121 and P.S.L. Block 167. Mr. Durrell's only original call for natural or artificial monuments was for the Fort Stockton and Leoncita road and this road is the only object which gives us a clue as to his declination. Using Durrell's figures, I calculated the bearing of the said road and found it to be $N 62^{\circ} 21' E.$, whereas the bearing using the true declination of $11^{\circ} 55' E.$ was $N 63^{\circ} 11' E.$ Barton's declination is $11^{\circ} 18' E.$ which is $0^{\circ} 37'$ less than the true declination of $11^{\circ} 55' E.$ Consequently, if we take 37 minutes off the true bearing, $N 63^{\circ} 11' E.$ of said road, we get a bearing of $N. 62^{\circ} 34' E.$, which checks Durrell's calculated bearing by 13 minutes. Since Durrell's ground work is so very meager and since it is quite evident that he intended his survey lines to be parallel to and at right angles to the work done by Barton in Blocks A, B, C & D, I have concluded that Barton's declination is the correct one to use in reconstructing Block 121.

IV.

Retracement and Reconstruction of Surveys

Texas & Pacific Ry. Co. Block 3

The original field notes for this block are dated July 11 to 17, 1873, and signed by Mr. L. E. Edwards. These notes contain no calls for permanent corners or calls for natural or artificial objects by which the footsteps of the surveyor could be followed.

The only locative call given by Edwards in these field notes is at the N.W. corner of Survey 1. This call is "Beginning at a stake which is S. 70 E. 57,000 varas from the South corner of the A. Ball Survey 256.

Evidently upon receipt of these original field notes in the General Land Office, it was found that the location of the N. line of Block 3 would overlap the S. boundary line of the T & P 80 mile reserve, as defined under the special Act of 1873. Since Block 3 was located in accordance with Section 8 of this Act, which provided that the T & P Ry. Co. could locate 1000 certificates of 640 acres each on any domain of the State of Texas, subject to location of said 80 mile reservation and since Block 3 was evidently a part of the said 1000 certificates not to be located within the reserve, one whole tier of Surveys, which overlapped on the T & P 80 mile reserve, namely 1 to 22, inclusive, were abandoned, the certificates of which were returned to Edwards September 22, 1873 for relocation.

Murray Harris made a resurvey of Block 3 in February, 1886. His corrected field notes for surveys in Block 3, bounding on the Block lines, were filed and the original notes by Edwards were cancelled.

According to the notes in Harris' field book, he went to the S. corner of the A. Ball Survey 256, and apparently having computed the latitude and departure of Edwards call of S. 70 E. 57,000 varas he proceeded to run the Easting and Southing, as computed, to locate the beginning corner for Block 3. He ran a line East from the S. corner of the said A. Ball Survey to a point in the W. line of T & P Block 51, Township 10, of the 80 mile reserve which he had previously surveyed. Then by calculation, he determined the location of N.W. corner of Survey 1 Block 3, in relation to corners previously set by him on the S. boundary line of the 80 mile reserve. The results of this calculation are noted on the fly leaf of his field book. He calculated the beginning point of Survey 1, Block 3, to be 755 varas E. & 2924 varas N. of a rock mound set by him for the common S. corner of Surveys 47 & 48, Block 50, Township 10 of the said 80 mile reserve. This 2924 varas in Northing was then an overlap of Block 3 on the 80 mile reserve. Harris deducted 1900 varas of this Northing in accordance with the abandonment of the North tier of Surveys, as above mentioned. This deduction did not completely earase the overlap of Block 3, so Harris deducted 1024 varas from the second tier of surveys in Block 3, thus leaving this tier of surveys as 876 varas in width North and South. This narrow width of the second tier of surveys extended only as far East as the S.E. corner of the said 80 mile reserve. East of this corner the surveys were given their full width of 1900 varas N. & S., as called for originally.

It is evident that Harris located the N.W. corner of Survey 42, Block 3, at a point in the S.L. of the 80 mile reserve and 755 varas East of the common S. corner of Surveys 47 & 48, Block 50, Township 10, T & P 80 mile reserve. He then ran the West, South, East, and North lines of Block 3, establishing and marking survey corners as he went.

I have found a stone mound at the N.W. corner of Survey 42, Block 3, and identified it as being Harris' corner.

I began my survey of Block 3 at this stone mound for N.W. corner of Survey 42.

Thence Southerly at 420 varas (call 420 varas) cross old Military Road and at 880.3 varas (call 876) a stone mound for the S.W. corner of Survey #42. I find the bearings as called for to check and position of stone mound good relative to course and distance;

Thence Southerly at a proportioned distance of 1908 varas the S.W. corner of Survey #43 no trace of earth mound called for could be found, but bearings as called for check;

Thence Southerly at proportional distance of 1908 varas a stone mound on S. slope of ridge for the S.W. corner of Survey #84. Bearings called for here check and position of stone mound is good relative to course, distance and topography;

Thence Southerly at 1910 varas a stone mound on slope to East of a broken limestone surface for the S.W. corner of Survey #85. Bearing as given here checks and position of stone mound good relative to course and distance;

Thence Southerly at 1092 varas (call 1089) cross drain in Cayonosta Valley at 1809 varas (call 1807) cross main drain in Cayonosta, at 1911.2 varas, the proportional distance, to the S.W. corner of Survey #126, no earth mound found here, but bearings as called for here check except 30" cedar on S. bank of drain could not be found and I concluded it had been washed away by erosion in the drain;

Thence Southerly at 1911.2 varas a stone mound on a limestone ridge sloping to West for S.W. corner of Survey #127. Bearings as called for here check and position of stone mound good relative to course, distance and topography; 30" cedar tree called for is gone;

Thence Southerly at 1911.2 varas a large stone mound in a small valley for S.W. corner of Survey #168. Bearings given here check and position of stone mound good relative to course, distance and topography;

Thence Southerly at 1910.4 varas a large stone mound on the W. slope of a rocky point near a drain for the S.W. corner of Survey #169. Here I find at courses and distances called for the stump of a double cat claw 5 & 6 inches in diameter and a cat claw stump 5 inches in diameter. I also find other bearings as called for to check. Position of stone mound is good relative to course, distance and topography;

Thence Southerly at 1910.0 varas to a point in an old prairie dog town in a large valley for the S.W. corner of Survey #210. No trace of earth mound called for here could be found. Corner located at intersection of W & S lines of this block. Bearings as called for check at this point;

Thence Easterly at proportional distance of 1911.26 varas to a point for S.E. corner of Survey #210. No trace of an earth mound or pits could be found, but bearings as called for check;

Thence Easterly at proportional distance of 1911.26 varas to a stone mound for the S.E. corner of Survey #209. Bearings as called for here check and position of mound good relative to course and distance;

Thence Easterly at 1909.9 varas a stone mound for the S.E. corner of Survey #208. Bearings as called for here check and position of mound good relative to course and distance;

Thence Easterly at 2053.04 varas to a stone mound for the S.E. corner of Survey #207. Bearings as called for check and location of corner good relative to course and topography;

Thence Easterly 1908.29 varas to stone mound for S.E. corner of Survey #206. Bearing as called for here checks and position of corner good relative to course and topography;

Thence Easterly a proportional distance of 1908.27 varas to a point for S.E. corner of Survey #205. No trace of an earth mound found here, but bearing as called for checks;

Thence Easterly a proportional distance of 1908.28 varas to a stone mound for the S.E. corner of Survey #204. No trace of an earth mound and pits could be found. Bearings as called for check and position accepted as that of the original earth mound;

Thence Easterly at 1813.4 varas (call 1804) cross old Fort Stockton and Leoncita road, (Harris called it a wagon road in his field book) at 1909.4 varas, the proportional distance, to a point for the S.E. corner of Survey #203. No trace of an earth mound or pits could be found, but bearings as called for check;

Thence Easterly at proportional distance of 1909.4 varas to a point for the S.E. corner of Survey #202. No trace of an earth mound and pits could be found, but bearings as called for check;

Thence Easterly a proportional distance of 1909.4 varas to a point for the S.E. corner of Survey #201. No trace of an earth mound could be found, but bearings as called for check from this location;

Thence Easterly a proportional distance of 1909.4 varas to a stone mound for the S.E. corner of Survey #200. Bearings as called for check and position of stone mound good relative to course and distance;

Thence Easterly a proportional distance of 1911.4 varas to a stone mound for the S.E. corner of Survey #199. Bearings as called for check and position of stone mound good relative to course and distance;

Thence Easterly a proportional distance of 1911.4 varas to a stone mound for the S.E. corner of Survey #198. Bearings as called for check and position of stone mound good relative to course and distance;

Thence Easterly a proportional distance of 1910.81 varas to a point for the S.E. corner of Survey #197. No earth mound could be found here, but bearings as called for check;

Thence Easterly a proportional distance of 1910.81 varas to a point for the S.E. corner of Survey #196. No earth mound could be found here, but bearings as called for check;

Thence Easterly a proportional distance of 1910.81 varas to a stone mound for the S.E. corner of Survey #195. Bearings as called for check and position of stone mound good relative to course and distance;

Thence Easterly a proportional distance of 1908.48 varas to a point for the S.E. corner of Survey #194. No stone mound found here, but bearings as called for check at this point;

Thence Easterly a proportional distance of 1908.48 varas to a point for the S.E. corner of Survey #193. No trace of an earth mound or pits found here, but bearings as called for check;

Thence Easterly a proportional distance of 1908.48 varas to a point for the S.E. corner of Survey #192. No stone mound found at this point, but bearings as called for check;

Thence Easterly a proportional distance of 1908.48 varas to a point for the S.E. corner of Survey #191. No trace of an earth mound or pits found here, but bearings as called for check;

Thence Easterly a proportional distance of 1908.48 varas to a point for the S.E. corner of Survey #190. No trace of an earth mound found here, but bearings as called for check;

Thence Northerly 1912.76 varas to a mound of small stones for the N.E. corner of survey #190. Bearings as called for here check and position of mound good relative to course and distance;

Thence Northerly at 1912.76 varas to a large stone mound, near head of small drain running Westerly, for the N.E. corner of Survey #189. Bearings as given here check and position of stone mound good relative to course and distance;

Thence Northerly a proportional distance of 1909.2 varas to a point for N.E. corner of Survey #148. No stone mound found here. The 6" cedar called for is gone. The cupola on the Court House is gone, but bearing to center of Court House roof checks bearing as called for to cupola;

Thence Northerly a proportional distance of 1909.2 varas to a point for N.E. corner Survey #147. No stone mound found here, but bearing as called for checks;

Thence Northerly a proportional distance of 1909.2 varas to a point for N.E. corner of Survey #106. No stone mound found here. Cupola on Court House is gone, but given bearing checks to center of Court House roof;

Thence Northerly a proportional distance of 1909.2 varas. No earth or pits at this corner, but bearings as called for check from this point;

Thence Northerly a proportional distance of 1909.2 varas. No stone mound at this corner. Bearings as called for were not visible from this point;

Thence Northerly a proportional distance of 1909.2 varas to a large stone set in ground marked N.E. 63 B 3. Bearings as given check from this point and position of stone mound good relative to course and distance;

Thence Westerly at 1908.26 varas a large stone set in ground and marked NW 63 SE 23 NE 62. Bearings as called for check and position of mound good relative to course and distance;

Thence Northerly at 1910.56 varas to a large stone set in ground and marked NE 23 NW 22. Bearings as called for check and position of stone mound good relative to course and distance;

Thence Westerly 1919.96 varas to a large stone set in ground and marked NW 23. Bearings as called for check at this point and position of stone good relative to course and distance;

Thence Westerly at 1901.71 varas to a large stone marked NW 24. Bearings as called for check and position of stone good relative to course and distance;

Thence Westerly at 1909.37 varas to a large stone set in ground and marked NW 25 B 3. Bearings as called for check and position of stone good relative to course and distance;

Thence Westerly at 1912.40 varas to a large stone set in ground and marked NW 26 B 3. Bearings as called for check and position of stone good relative to course and distance;

Thence Westerly at 1907.69/^{varas} to a large stone set in ground and marked NW 27 B 3. Bearings as called for check and position of stone good relative to course and distance;

Thence Westerly at 1914.38 varas to a large stone set in ground and marked NW 28 B 3. Bearings as called for check and position of stone good relative to course and distance;

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Thence Westerly at 799 varas (call 800) cross creek and at 1911.73 varas to a large stone set in ground and marked NW 29 B 3. Bearing as called for checks and position of stone good relative to course and distance;

Thence Westerly at 854.34 varas (call 750) to a stone mound in the E. line of Survey #48, Township 10, Block 48, of the T & P 80 mile reserve as established by Murray Harris in 1886;

Thence Southerly with the said E. line of said Survey 48 a distance of 971.6 varas (call 1024) to a stone mound for the S.E. corner of the T & P RR Company Block 48, Township 10, and the S.E. corner of the T & P 80 mile reserve as established by Murray Harris. No bearings called for at this point, but position of stone mound good;

Thence Westerly at a proportional distance of 1155.81 varas to a point for N.W. corner of Survey #30, said point being on the S. line of T & P 80 mile reserve as established by Harris and 212.79 varas (call 210) East from a large stone mound on a hill;

Thence Westerly with the S.B.L. of the T & P 80 mile reserve as established by Murray Harris at proportional distance 212.79 (call 210) varas pass a large stone mound on a hill, at proportional distance 753.79 varas (call 750) a stone mound identified as Harris original S. corner of Surveys 47 & 48, Township 10, Block 48, of the T & P 80 mile reserve, at proportional distance of 1909.64 varas to a point for N.W. corner of Survey 31 this block;

Thence Westerly with the said S.L. of T & P 80 mile reserve at proportional distance 753.81 varas (call 750) the S. corner of Surveys 46 & 47 of Township 10, Block 48, T & P 80 mile reserve as established by me and at proportional distance of 1909.66 varas to a point for N.W. corner Survey #32 this Block;

Thence Westerly at proportional distance of 753.81 varas (call 750) a large stone mound on high ridge identified as being Harris original S. corner of Surveys 45 & 46, Township 10, Block 48, of T & P 80 mile reserve, at proportional distance 1908.94 varas to a point for N.W. corner of Survey 33 this block;

Thence Westerly at proportional distance 753.35 varas the S. corner of Surveys 44 & 45 of said block 48 as established by me and at proportional distance 1908.48 varas to a point for the N.W. corner of Survey 34 this block;

Thence Westerly at proportional distance 753.35 varas the S. corner of Surveys 43 & 44, Township 10, Block 48, T & P R.R. 80 mile reserve as established by me and at proportional distance 1908.48 varas to a point for N.W. corner of Survey 35 this block;

Thence Westerly at proportional distance 753.35 varas a stone mound identified as Harris' original S. corner of Blocks 48 & 49, Township 10 of the T & P 80 mile reserve and at proportional distance of 1909.58 varas a point for the N.W. corner of Survey 36 this block.

Thence Westerly at proportional distance 754.07 varas the S. corner of Surveys 47 & 48, Township 10, Block 49, T & P 80 mile reserve, and at proportional distance 1910.3 varas to a point for the N.W. corner of Survey 37 this block;

Thence Westerly at 24.07 varas (call 25) cross Cayonosta creek, at proportional distance 754.07 varas (call 750) a stone mound accepted as Harris' original S. corner of Surveys 46 & 47, Township 10, Block 49, T & P 80 mile reserve, at proportional distance 1909.74 varas a point for the N.W. corner of Survey 38 this block;

Thence Westerly at proportional distance 753.69 varas (call 750) the S. corner of Surveys 45 & 46, Township 10, Block 49, T & P 80 mile reserve, at proportional distance 1909.36 varas to a point for the N.W. corner of Survey #39 this block;

Thence Westerly at proportional distance 753.69 varas (call 750) to a stone mound identified as being Harris' original S. corner of Surveys 44 & 45, Township 10, Block 49, T & P 80 mile reserve, at proportional distance of 1909.9 varas to a point for the N.W. corner of Survey 40 this block;

Thence Westerly at proportional distance 753.40 varas (call 750) to a stone mound identified as being Harris' original S. corner of Surveys 43 & 44, Township 10, Block 49, T & P 80 mile reserve, at proportional distance of 1908.12 varas to a point for the N.W. corner of Survey 41 this block;

Thence Westerly at 340.07 varas (call 308, this is apparently a mistaken call and should have been 338 as determined by an examination of field notes in Block 49) to a large stone mound, the stone in center being marked T. P., at proportional distance 753.07 varas (call 750) to a stone mound identified as being Harris' original S. corner of Blocks 49 & 50, Township 10, T & P 80 mile reserve; at proportional distance 1905.18 varas to the point of beginning of this retracement.

In view of the foregoing retracement survey, it is my conclusion that the boundary lines of T & P Block 3, as run by Murray Harris, are well marked and corners identified by calls to artificial and natural monuments. Those corners on the block lines not marked with permanent markers can be established between identified corners at distances proportional to the distance between identified corners.

The subdivision of Block 3 into surveys is a matter of projecting lines through the block from corners on the block lines. This system of construction is shown on the accompanying map.

Corners established by me are marked by cedar stakes and witnessed to natural and artificial objects. The original Harris corners found by me were not disturbed in any manner.

G.C. & S.F. Ry. Co. Blocks A, B, C & D

I find upon examination of the field notes for these blocks that numerous stone mounds are called for and in several instances reference monuments are called for. At the N.W. corner of Survey 1, Block B, a stone mound on a rocky ridge is called for - "from which a stone monument on top of Round Mountain bears N 51 W 280 varas". I found upon reading Mr. R.S. Dod's report of his resurvey of Blocks A, B, C & D, in 1913, that he found this "stone mound on rocky ridge" which he later refers to as the Pikes Peak corner. He reports that the monument on the hill was easily recognized and had been identified for years and accepted as the original bearing for the corner. I found the

stone mound on the rocky ridge which Mr. Dod called the Pikes Peak corner. I could not find the reference monument on Pikes Peak which Dod reported to have found. The United States Coast and Geodetic Survey has a triangulation station on this hill known as the Chancellor Station. It is barely possible that they destroyed Barton's reference monument when they placed their station there so as to avoid confusion. The triangulation station is several varas North of the South end of the hill which is the highest point of the hill. The bearing to the triangulation station from the stone mound, using a declination of $11^{\circ} 18' E.$, is $N 48^{\circ} 18' W$ 278 varas. If we consider that Barton's reference monument was on the high South end of the hill, it becomes apparent that the bearing of $N. 51^{\circ} W$ 280 varas given by Barton will check. In fact there is a large circular spot on the S. end of the hill, devoid of grass, large rocks and shrubs, at the place where the monument should have been. After giving this condition considerable thought and taking into consideration Mr. Dod's report, I became convinced that the stone mound on the rocky ridge was Barton's original N.W. corner of Survey 1, Block B.

At the common S. corner of Surveys 25 & 48 Block D, and N.E. corner of Survey 90, Block A, Mr. Barton called for an earth mound from which a stone mound on top of hill bears $S 58^{\circ} E$ 320 varas. After reading Mr. Dod's report of his resurvey of these blocks in 1913, it was an easy matter to locate the stone mound he set for the N.E. corner of Survey 90, Block A. The mound was composed of about 10 large stones, one of which was marked NE 90 A. The stone monument on the hill was found to be an old one about 3 feet high.

At the N.W. corner of Survey 48, Block B, Mr. Barton calls for an earth mound in a drain by a dagger. I ran a line West, using $11^{\circ} 18' E.$ declination, from the N.W. corner of Survey 1, Block B, in an effort to locate this corner in a drain. At 9704.25 varas I crossed a drain which is the only drain in the vicinity and consequently must be the drain Barton had reference to in his field notes. In going this distance West I find an excess in Westing of 204.25 varas which amounts to 40.85 varas per mile. The dagger called for could not be found. I was told by several old timers that at one time quite a few daggers grew in the creek bottom, but at this time there are none to be found.

On running a line North from the N.E. corner of Survey 90, Block A, and West to the N.W. corner of Survey 1, Block B, I find I have to use a declination of $11^{\circ} 18' E$ and add an excess of 37.05 varas to each mile to fit Barton's pattern. It appears from this fact that Barton's measurements

are approximately 40 varas excessive per mile.

The excess of approximately 41 varas per mile which I was obliged to use to reach the above mentioned drain checks reasonably close with the 37 varas per mile which is necessary to connect the N.E. corner of Survey 90, Block A, with the N.W. corner of Survey 1, Block B. With this fact in mind I took the point in the drain mentioned above to be the true location of the N.W. corner of Survey 48, Block B.

A diligent search was made for the other corners at which Barton called for stone mounds, but none were found.

In view of the above findings, I have resurveyed the N. line of Blocks A, B, & C as a line extending East and West, with a declination of $11^{\circ} 18' E.$, through the stone mound on a rocky ridge at the N.W. corner of Survey 1, Block B. In running west from the N.W. corner of Survey 1, Block B, I have located the survey corners using a distance of 1940.85 varas per section up to and including Survey 48. West of the N.W. corner of Survey 48, Block B, I gave the surveys 1900 varas E. and W. as per the calls in the original field notes, since no original corners were found West of said Survey 48. In running East from N.W. corner of Survey 1, Block B, to N.E. corner of Survey 5, Block C, I gave each section 1937.05 varas. From the N.E. corner of Survey 5, Block C, I ran northerly 1900 varas (call 1900) and located the N.W. corner of Survey 1, Block D, and continued North 1443.62 varas further to a cedar stake on the South line of Block 3, T & P Ry. Company, as located by Murray Harris; said stake is S. $89^{\circ} 54' 08'' W.$ 646.7 varas from the S.E. corner of Survey 193, Block 3. Block 3 being the senior block, I stopped my survey on its South line.

At the N.E. corner of Survey 4, Block C, Barton called for a stone mound from which the W. point of Antelope Mountain bears North. I could not locate this mound nor reconcile the call to Antelope Mountain. The bearing to the W. point of Antelope from my position of the corner (declination $11^{\circ} 18' E.$) was N. $0^{\circ} 45' W.$ To locate the corner due South of said mountain would necessitate my location being moved approximately 140 varas West. Such a location would not coincide with the balance of the evidence on the ground. Hence, I regarded Barton's call for Antelope as an erroneous call.

At the N.W. corner of Survey 1, Block C, Barton called for "an earth monument." "From said earth mound a monument on top of Round Mountain,

which mountain stands about S. 45 W. from Stockton, bears N. 86 W. 2140 varas and the S.W. corner of Antelope Mountain or 12 mile mesa bears N. 36 E."

Using a declination of $11^{\circ} 18' E.$, I find the bearing from my position of this corner to be N. $85^{\circ} 20' W.$ 2162 varas to a point on Round Mountain where I concluded Barton's reference monument originally stood. The bearing to the S.W. corner of Antelope Mountain is N. $35^{\circ} 05' E.$ Although Barton's Bearings do not check exactly from my position of this corner, I could not find a more reasonable location for said corner.

Thus I have located the Survey corners on the N. lines of Blocks A, B, & C and the West lines of Surveys 1 & 2, Block D to the best of my belief and ability.

As explained above, I was able to locate only two of Barton's corners in these blocks, namely the N.W. corner of Survey 1, Block B, and the S.W. corner of Survey 48, Block D, or the N.E. corner of Survey 90, Block A.

I began my survey at a stone mound marked NE 90 A - Bearing as called for by Barton checks this location satisfactorily.

Thence Northerly a proportional distance of 1937.05 varas to a point for the N.E. corner of Survey 25, Block D; stone mound set by Dod marked NE 25 bears N $60^{\circ} 34' W.$ 11.62 varas;

Thence Northerly a proportional distance 1937.05 varas to point for N.E. corner of Survey 26, Block D; a stone mound set by Dod and marked N.E. 26 bears N. $81^{\circ} 28' W$ 17.74 varas;

Thence Northerly a proportional distance of 1937.05 varas to a point for N.E. corner of Survey 27;

Thence Northerly a proportional distance of 1937.05 varas to point for N.E. corner of Survey 28;

Thence Northerly a proportional distance of 1937.05 varas to point for N.E. corner of Survey 29;

Thence Northerly a proportional distance of 1937.05 varas to point for N.W. corner of Survey 43, a stone mound set by Dod marked N.W. 43 bears N. $82^{\circ} 02' W.$ 31.37 varas;

Thence Northerly a proportional distance of 1937.05 varas to point for N.E. corner of Survey 31;

Thence Northerly a proportional distance of 1937.05 varas to a point for N.E. corner of Survey 32;

Thence Northerly a proportional distance of 1937.05 varas to a point for N.E. corner of Survey 33;

Thence Northerly a proportional distance of 1937.05 varas to a point for N.E. corner of Survey 34;

Thence Westerly a proportional distance of 1937.05 varas to a point for N.W. corner of Survey 34;

Thence Westerly a proportional distance of 1937.05 varas to a point for N.W. corner of Survey 5;

Thence Westerly at proportional distance of 1937.05 varas to a point for the N.W. corner of Survey 6, Block D, the N.E. corner of Survey 5, Block C and the S.E. corner of G. C. & S.F. R.R. Company, Block 121;

Thence Westerly a proportional distance of 1937.05 varas to a point for the common N. corner of Surveys 4 & 5 Block C; no stone mound here, the call to Antelope Mountain cannot be reconciled;

Thence Westerly a proportional distance of 1937.05 varas to a point for common N. corner of Surveys 3 & 4, Block C, no stone mound found here;

Thence Westerly a proportional distance of 1937.05 varas to a point for common N. corner of Surveys 2 & 3 Block C; no earth mound found here;

Thence Westerly at proportional distance of 1937.05 varas to a point for the common N. corner of Surveys 1 & 2 Block C; no earth mound found here;

Thence Westerly at proportional distance of 1937.05 varas to a point for N.W. corner of Survey 1, Block C. and N.E. corner of Survey 1, Block B. No earth mound found here, but bearings as called for check fairly well and a more reasonable location of corner cannot be found;

Thence Westerly at proportional distance of 1937.05 varas to a stone mound on a rocky ridge. This mound accepted as Barton's original marker for N.W. corner of Survey 1, Block B;

Thence Westerly at proportional distance of 1940.85 varas to a point for the common N. corner of Surveys 16 & 17, Block B. No stake and mound could be found here;

Thence Westerly a proportional distance of 1940.85 varas to a point for the common N. corner of Surveys 17 & 32, Block B. No stake and mound found here;

Thence Westerly a proportional distance of 1940.85 varas to a point for the common N. corner of Surveys 32 & 33, Block B. No stake and mound found here;

Thence Westerly at proportional distance of 1940.85 varas to a point for the common N. corner of Surveys 33 & 48, Block B.

Thence Westerly a proportional distance of 1940.85 varas to a point in a drain. No earth mound could be found and the dagger called for is gone. This point accepted as Barton's original location of the common N. corner of Surveys 48 & 49, Block B;

Thence Westerly 1900 varas to a point for the common N. corner of Surveys 49 & 64, Block B. No stake found;

Thence Westerly at 569.6 varas cross old Ft. Stockton Leoncita Road, at 1900 varas in all a point for the common N. corner of Surveys 64 & 65, Block B; no earth mound at this point;

Thence Westerly 1900 varas to a point for the common N. corner of Surveys 65 & 80, Block B. No stake found;

Thence Westerly 1900 varas to a point for N.W. corner of Survey 80, Block B, and N.E. corner of Survey 1, Block A. No stake found at this corner;

Thence Westerly 1900 varas to a point for the common N. corner of Surveys 1 & 2, Block A. No stake and mound found here;

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Thence Westerly 1900 varas to a point for the common N. corner of Surveys 2 & 3, Block A. No stake and mound found here;

Thence Westerly 1900 varas to a point for the common N. corner of Surveys 3 & 4, Block A. No earth mound found here;

Thence Westerly 1900 varas to a point for N.W. corner of Survey 4, Block A, and N.W. corner of Block A. No stake and mound could be found here;

A diligent search was made for corners on the W. side of Block A, but none were found.

From the foregoing it is shown that Blocks A, B, C, and D, as surveyed by Mr. H. C. Barton, can be reconstructed on the ground by proration and protraction from original Barton corners found and accepted by me.

Corners established by me are marked with cedar stakes approximately $3\frac{1}{2}$ " x 14" and witnessed to natural and artificial objects. On S. side of each stake is buried a one ounce glass bottle with screw cap which contains a note describing this corner.

G.C. & S.F. Ry. Co. Block 121

L. W. Durrell surveyed Block 121 in 1881 and apparently intended to fill in the area West of Surveys 1 & 2 in Block D, and North of Blocks A, B, & C. - G.C. & S.F. Ry. Co., thus constructing a block two miles in width N. & S. and 19 miles E. & W. On examination of the field notes for the surveys in this block, I find that Durrell had no original calls for reference monuments except in surveys 17, 20 & 21. Other calls for natural or artificial monuments were at corners where Durrell called for the corners of surveys in the G.C. & S.F., Blocks A, B, C & D, and the objects which he called for on these corners were identical with those called for by Barton in his field notes for Blocks A, B, C & D. At all other corners Durrell simply called for stake and mound, none of which could be found.

At the N.W. corner of Survey 17, Block 121, Durrell calls for "an earth mound on South side of Ft. Stockton and Leoncita road (cap rock of said earth mound marked C.7) for the Northwest corner of this survey. From whence an earth mound marked C.6 on North side of said road bears North 1342 varas." There is some confusion here concerning the location of this road. One would infer from the notes that the Ft. Stockton - Leoncita road was either 1342 varas in width or that it had an S curve in it so that it could pass by the corner and then reverse itself so as to pass by the earth mound

1342 varas North of the corner, or that the road branched out somewhere along the line and made two trails through this particular area, one of which passed by the corner and the other passed by the point 1342 varas N. of the corner. Since the road as found on the ground will not fit any of the foregoing conditions, I have reached the conclusion that Durrell meant an earth mound South of the Ft. Stockton and Leoncita road instead of "on the south side of the road."

At the N.W. corner of Survey 20, Durrell calls for an earth mound "from whence an earth mound marked C. 8 on South side of Ft. Stockton and Leoncita road bears West 662 varas."

At the N.E. corner of Survey 20, which is also the N.W. corner of Survey 17, above discussed, Mr. Durrell calls "to an earth mound marked C.7", and does not mention the road as he did in the field notes for Survey 17, thus creating the impression that his call for the C. 7 mound as being on the South side of the Ft. Stockton and Leoncita road was purely a mistake.

At the N.E. corner of Survey 21, Durrell calls for an earth mound "from whence an earth mound marked C.8 on the South side of Ft. Stockton - Leoncita road bears West 662 varas."

From the above calls, I came to the conclusion that Durrell tied into the Ft. Stockton - Leoncita road in two places. At the N.W. corner of Survey 20 and N.E. corner of Survey 21, he calls for his corner to be 662 varas East of said road and at the N.W. corner of Survey 17, he calls for this corner to be 1342 varas South of said road. From the above two ties I was able to calculate the bearing of the road with relation to Durrell's work. This bearing was N. $62^{\circ} 21'$ E.

I made an extensive investigation as to the location of the said Ft. Stockton and Leoncita road. I talked to Mr. John Oates who has ranched in this immediate area since 1908. He identified the Ft. Stockton-Leoncita road and said he had known the road for 35 years himself and had, on several occasions, talked with old timers, who were traveling the road, and who told him that they had traveled the very same road for 15 years before he himself had any knowledge of said road. This evidence established the identity and location of the road for the past 50 years in its present location. Durrell made his survey in November, 1881, which leaves a period of approximately 61 years between then and the present time. According to Mr. Oates'

statements, I have established the location and identity of said road for 50 of those 61 years.

I had Mr. E.E. Townsend of Alpine, Texas, who was the foreman of the E. L. Ranch (immediately S. of Blk. 121) for 16 years in the early days, go with me on the ground and identify the Ft. Stockton-Leoncita road. It was for Mr. Townsend, as foreman of the E.L. Ranch, that Dod made his re-survey of G.C. & S.F. Blocks A,B,C & D in 1913. Mr. Townsend could remember the road distinctly since 1900 and showed me the road on the ground. We examined other roads in the vicinity, but Mr. Townsend was positive in his knowledge of the Ft. Stockton-Leoncita road. He said he had traveled the road many times, on horse back, in wagons and automobiles, and was thoroughly familiar with the country. He very definitely pointed out the old Ft. Stockton-Leoncita road and said that all other roads in the vicinity were later roads which were not old enough to be the Ft. Stockton-Leoncita road and none of which, in his knowledge, was the road in question.

I went to San Antonio and talked to Mr. L. W. Durrell, the Surveyor, in the hope of obtaining field books and plats of this area, but unfortunately, Mr. Durrell had neither. He said he had turned all of his notes and maps over to Powell and Gage for whom he had done the surveying of Block 121. Mr. Durrell could not remember his work on Block 121. I then went to Dallas, Texas, and examined the records of Powell and Gage, but found nothing. I questioned several relatives of Powell and Gage, but could not get any information of value.

I flew over the area from Ft. Stockton to Leoncita spring and found that the old Ft. Stockton-Leoncita road, as identified by Mr. Townsend and Mr. Oates, could be definitely followed all the way from the Commanche Spring at Ft. Stockton to the Leoncita Spring. The shrubbery on both sides of the old road was greener and of much more vigorous growth than the other shrubbery in the vicinity. In fact the line of the old road was traceable throughout because of the state of the shrubbery, whereas in places the ruts of the old road were filled in completely and covered with grass to such an extent as to be invisible. I found other roads to the North of this old road, which were running almost parallel to the old road. The ruts of these roads were

plainly visible from the air, but seemed to disappear after short distances, and appeared to be just segments of roads set down in the brush. The state of the shrubbery along these short pieces of road was the same as that of the surrounding brush which led me to believe that the ruts of these road had not been cut deeply enough to serve as reservoirs for the fertilizer and water necessary to promote more vigorous growth in the native shrubs.

On the ground I walked along the old road for several miles in the vicinity in which I was interested and noted again how much more vigorous the growth was along the old road than the surrounding growth. In places the ruts have filled with more fertile soil which evidently holds the moisture longer than the ordinary soil. In instances where the ruts have eroded and are now principally ditches, I noted how the water stands in pools, thereby causing the growth to flourish.

In walking along this old road, I also noted much evidence of travel in the way of old hand soldered tin cans, bottles which have turned purple from being exposed to the sun for many years, and old pieces of metal broken from vehicles or harness.

On the other hand, I could discover no signs of travel along other roads running parallel to the old road, and furthermore the growth along the ruts of these other roads was no different from the surrounding growth.

With the foregoing evidence in mind, I took the old road, as pointed out by Mr. Townsend and Mr. Oates, to be the original Ft. Stockton and Leoncita road.

Since Mr. Durrell's evident intention was to make Block 121 run parallel to Barton's Blocks A, B, & C. to the South, I have adopted Barton's declination of $11^{\circ} 18'$ E. as the proper declination to use in surveying Block 121. Using this declination, I determined the bearing of the Ft. Stockton-Leoncita road to be $N. 62^{\circ} 34'$ E. which checks Durrell's bearing of $N. 62^{\circ} 21'$ E. as previously discussed by 13 minutes.

Inasmuch as Mr. Durrell calls for the S. corners of Surveys in Block 121 to be to the N. corners of Surveys in Blocks A, B, & C. - G.C. & S.F., I have constructed Block 121 in that manner. That is, I have given the

surveys in Block 121 the same excess per mile in an East and West direction that I found to exist in the surveys of Blocks A, B, & C. These calls for adjoinder to the survey corners in Blocks A, B, & C. have the effect of controlling the location of Block 121 in an E. & W. direction.

The call for the Ft. Stockton and Leoncita road controls the location of the N. line of Block 121 since the rule of surveying is "the call for a natural or artificial monument will control over course and distance."

Bearing in mind the calls for adjoinder to the N. corners of surveys in Blocks A, B, & C. and the calls for the Ft. Stockton and Leoncita road, I have located the West lines of surveys 19 & 20 of Block 121 as a line running N. (declination $11^{\circ} 18' E$) from the N.W. corner of Survey 33, G. C. & S. F., Block B, as established by this survey to a point which is 662 varas East of the S. side of the said Ft. Stockton and Leoncita road. This point is then a point on the N.L. of G.C. & S.F. Block 121. I ran the N.L. of Block 121 East from the above point to an intersection with the W.L. of Survey 2, G.C. & S.F., Block D, for the N.E. corner of Block 121 and the N.E. corner of Survey 1 of Block 121. I then constructed the surveys in Block 121 by beginning at the N.E. corner of said block and laying in the surveys as per the calls in the original field notes as near as possible.

In laying in survey 1, according to the calls in the original field notes, I began my survey at the N.E. corner of the block and on the W. line of Survey 2 - G.C. & S.F., Block D, as established by this survey. Thence I ran southerly and at 421.88 varas I came to the S.W. corner of said survey 2 of Block D. Since the original field notes call to go to this corner, I stopped my southward run here and made this point the S.E. corner of Survey 1 and then ran westerly 1937.05 varas for the S.W. corner of Survey 1 - Thence Northerly 421.88 varas to the N.L. of the block for the N.W. corner of Survey 1 - Thence Easterly with the N.L. of said Block 1937.05 varas to the place of beginning.

From the above described location of Survey 1, I came to the conclusion that the North tier of surveys in Block 121 should be 421.88 varas in width N. & S. and should have the same width E. & W. as the surveys in Blocks A, B, & C to the South. The South tier of surveys in Block 121 should be a full 1900 varas in width N. & S. and have the same width E. & W. as the surveys of Blocks A, B, & C to the South.

Public School Land Block 167

This block was surveyed by L. W. Durrell in 1882 about 8 months after his survey of G. C. & S. F., Block 121. In running West on the S. line of said Block 167, Mr. Durrell tied into the N. corners of surveys in Block 121, and in running East on the N.L. of Block 167 he calls to go with the S. lines of Surveys of T & P Block 3. Thus making it perfectly clear that his intention was to cover all the territory between the N.L. of Block 121 and the S.L. of Block 3.

Mr. Durrell called for the Ft. Stockton and Leoncita road in the same two places as he had in Block 121. No other calls for natural or artificial reference points were given. He calls for earth mounds at the corners of every survey, none of which were found.

The calls for the road appear in Surveys 4 and 5. In Survey 4 the call on its S. line is as follows, "Thence W. in the N. lines of Surveys 13, 16, 17, 20 & 21 in Block 121, made in name of the Gulf Colorado and Santa Fe Railway Company at 4174 varas an earth mound with cap rock marked 'C.7' the North West corner of said Survey 17, 6717 varas to an earth mound for the Southwest corner of this survey - from whence an earth mound at side of road bears West 19 varas."

In Survey 5 the calls for the road are contained in the following "Beginning at an earth mound 2 feet high at the N.W. corner of Survey 4 in this block for the N.E. corner of this survey - from whence a rock mound at the N. side of Leoncita road is 2543 varas East and 267 varas North; Thence South crossing Leoncita road 1075 varas to an earth mound at S. side of said road grade for the S.W. corner of said Survey 4 for the S.E. corner of this survey."

At the S.W. corner of Survey 4, Durrell calls for an earth mound from whence an earth mound at side of road bears W. 19 varas. It is this reference monument to which Durrell referred at the N.W. corner of Survey 20, Block 121, as being marked C.8. I came to this conclusion after a study of the calls on the S. lines of Survey 4 as given above. I subtracted the call of 4174 varas from the total length of 6717 varas which gave me 2543 varas. This 2543 varas is then the

distance from the N. W. corner of Survey 17, Block 121, to the S.W. corner of survey 4, Block 167. It also corresponds with the distance Durrell gives from his N.E. corner of Survey 5, Block 167, East to a rock mound on N. side of Leoncita road. Thus establishing the fact that the rock mound on N. side of Leoncita road was due North of the N.W. corner of Survey 17, Block 121. Subtracting 1900 varas (the call distance between N.W. corner of 17 and N.W. corner of Survey 20, Block 121) from the above figure of 2543 varas gives a remainder of 643 varas which is the distance West from the N.W. corner of Survey 20, Block 121, to the S.W. corner of Survey 4, Block 167. But the call at N.W. corner of Survey 20 is for an earth mound to be 662 varas West. At the S.W. corner of Survey 4, Mr. Durrell called for an earth mound to bear West 19 varas. Therefore, by adding the 19 varas to the 643 varas, the distance of 662 varas as called for at the N.W. corner of Survey 20, Block 121, was established.

In the above manner I definitely convinced myself that Mr. Durrell had tied his two blocks together at the two places on the Ft. Stockton and Leoncita road, and consequently I constructed Block 167 on this basis. Using the N.L. of Block 121 as the S.L. of Block 167, I located the common S. corner of Surveys 4 & 5 of Block 167 at a point on the S. side of the Ft. Stockton-Leoncita road and 643 varas West of the N.W. corner of Survey 20, Block 121 as established by this survey.

From this common S. corner of Surveys 4 & 5, I constructed the surveys of Block 167 to the East and to the West of said corner giving each survey the same percentage of excess in Easting and Westing as I gave to the surveys in Block 121. I gave the block a width of 1075 varas North and South, as called for in the original field notes, but found that the N.L. of Block 167 overlapped the South line of T & P R.R. Co., Block 3, as established by Murray Harris, to quite an extent and since Block 3 is the senior block, I stopped my survey of Block 167 on the South line of said Block 3, thus restricting the North and South width of Block 167 to quite an extent.

I began my survey of Block 167 at the N.E. corner of Block 121 as established by this survey.

Thence Westerly at proportional distances, at 1937.05 varas the common N. corner of Surveys 1 & 4 of Block 121, at 3874.1 varas the common N. corner of Surveys 4 & 5 of Block 121, at 5811.15 varas - the common N. corner of Surveys 5 & 8 of Block 121, at 6330.06 varas in all the S.W. corner of Survey 2 this block.

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Thence Westerly at proportional distances, at 1418.14 varas - the common N. corner of Surveys 8 & 9 of Block 121, at 3355.19 varas the common N. corner of Surveys 9 & 12 of Block 121, at 5292.24 varas the common N. corner of Surveys 12 & 13 of Block 121, at 6851.80 varas in all the S.W. corner of Survey 3 of this block;

Thence Westerly at proportional distances at 381.29 varas the common N. corner of Surveys 13 & 16 of Block 121, at 2322.14 varas the common N. corner of Surveys 16 & 17, Block 121, at 4262.99 varas the common N. corner of Surveys 17 & 20, Block 121, at 6203.84 varas the common N. corner of Surveys 20 & 21, Block 121, at 6846.84 varas in all the S.W. corner of Survey 4 of this block;

Thence Westerly at proportional distances at 19 varas strike the S. side of the Ft. Stockton-Leoncita road, at 1297.85 varas the common N. corner of Surveys 21 & 24, Block 121, at 3197.85 varas the common N. corner of Surveys 24 & 25, Block 121, at 5097.85 varas the common N. corner of Surveys 25 & 28, Block 121, at 6757.85 varas in all the S.W. corner of Survey 5 this block;

Thence Westerly at 240 varas the common N. corner of Surveys 28 & 29, Block 121, at 2140 varas the common N. corner of Surveys 29 & 32, Block 121, at 4040 varas the common N. corner of Surveys 32 & 33, Block 121, at 5940 varas the common N. corner of Surveys 33 & 36, Block 121, at 6717 varas in all the S.W. corner of Survey 6 this block;

Thence Northerly at 608.86 varas to a point on the S. line of T & P Ry Company Block 3, and 367.14 varas N. $89^{\circ} 48' 27''$ E. of its S.W. corner as established by this survey;

Thence Easterly with the S.E.L. of said Block 3 at 1544.06 varas the S.E. corner of Survey 210, Block 3, at 3455.26 varas the S.E. corner of Survey 209, Block 3, at 5365.14 varas the S.E. corner of Survey 208, Block 3, at 6717.62 varas in all the N.E. corner of Survey 6 this block;

Thence Easterly at 700.56 varas the S.E. corner of Survey 207, Block 3, at 2608.85 varas the S.E. corner of Survey 206, Block 3, at 4517.12 varas the S.E. corner of Survey 205, Block 3, at 6425.40 varas the S.E. corner of Survey 204, Block 3, at 6758.36 varas in all the N.E. corner of Survey 5 this block;

Thence Easterly at 1480.42 varas cross the old Ft. Stockton-Leoncita road, at 1576.42 varas the S.E. corner of Survey 203, Block 3, at 3485.80 varas the S.E. corner of Survey 202, Block 3 at 5395.19 varas the S.E. corner of Survey 201, Block 3, at 6847.25 varas in all the N.E. corner of Survey 4 this block;

Thence Easterly at 457.34 varas the S.E. corner of Survey 200, Block 3, at 2368.74 varas the S.E. corner of Survey 199, Block 3, at 4280.14 varas the S.E. corner of Survey 198, Block 3, at 6190.95 varas the S.E. corner of Survey 197, Block 3, at 6852.31 varas in all the N.E. corner of Survey 3 this block;

Thence Easterly at 1249.45 varas the S.E. corner of Survey 196, Block 3, at 3160.26 varas the S.E. corner of Survey 195, Block 3, at 5068.74 varas the S.E. corner of Survey 194, Block 3, at 6330.53 varas in all to a point in the S.B.L. of Block 3, for the N.E. corner of Survey 2 this block and at the N.W. corner of Survey 2 Block D, G.C. & S.F. Ry. Co.

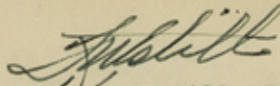
Thence Southerly 1021.74 varas to the place of beginning.

I have concluded that the above described traverse properly locates Block 167 in the position in which Durrell originally placed it.

The map accompanying this report graphically illustrates the manner in which the blocks were constructed and the method of proportioning the distances between identified points for the interior surveys. The map shows original corners found and courses and distances for all surveys in the blocks, together with the amount of acreage. The location of the original corners, and corners established by me for the surveys, are shown on the map by appropriate symbols which are defined in the Legend.

This report covering the survey truly represents a survey made by me on the ground and according to law. The limits, boundaries and corners with marks, both natural and artificial, are truly described in the report along with the accompanying plat and field notes just as I found them on the ground.

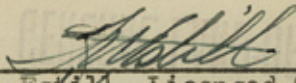
Very truly yours,



F. W. Estill, Licensed State Land Surveyor,
Winkler County, Texas.

I, F. W. Estill, Licensed State Land Surveyor of the State of Texas, do hereby certify that no part of Block 167, as described in this report or in the accompanying field notes, is within 5 miles of a producing oil or gas well.

This the 17th day of July, 1944.



F. W. Estill, Licensed State Land Surveyor.

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SKETCH FILE

File No. 82

PECO County

SUBV REPORT
BLOCK 167

Filed AUG. 5th, 1944

BASCOM GILES, Com'r

William Sheriff
File Clerk

REPORT RE LOCATION
OF BLOCK 167,
TANOR. R.R. CO. BLOCK
NO 3 AND G. C. F.
RY CO. BLOCK 121.

— F.W. Estill —